HP Service Pack for ProLiant 2014.02.0 Release Notes

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Revision History:

Initial Release

Black change bars on the right-side of the content will indicate any additions and changes.

Supersedes History

Initial Release

Effective Date

February 18, 2014

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Overview

HP Service Pack for ProLiant (SPP) is a comprehensive systems software and firmware solution delivered as a comprehensive ISO. This solution uses HP Smart Update Manager (HP SUM) as the deployment tool and is tested on all supported HP ProLiant servers including the HP ProLiant Gen8 servers.

The SPP is delivered as a family of ISO images and bundles which are documented in the following table:

Product Name	Comment
Note: The full SPP and its subsets are delivered as an ISO file and no longer delivered as a Zip file.	
HP Service Pack for ProLiant	Full SPP ISO Bootable ISO Filename: SPP2014020.2014_0128.5.iso
HP Service Pack for ProLiant - BladeSystem Red Hat Enterprise Linux Pack 2014.02.0	Subset SPP ISO Non-bootable ISO Filename: hpspp-blade-2014.02.0.7z
HP Service Pack for ProLiant - BladeSystem SUSE Linux Enterprise Server Pack 2014.02.0	Subset SPP ISO Non-bootable ISO Filename: hpspp-blade-2014.02.0.sles.7z
HP Service Pack for ProLiant - BladeSystem Microsoft Windows Server Pack 2014.02.0	Subset SPP ISO Non-bootable ISO Filename: hpspp-blade-2014.02.0.win.7z
HP Service Pack for ProLiant - ProLiant ML/DL/SL Red Hat Enterprise Linux Pack 2014.02.0	Subset SPP ISO Non-bootable ISO Filename: hpspp-mldlsl-2014.02.0.rhel.7z
HP Service Pack for ProLiant - ProLiant ML/DL/SL SUSE Linux Enterprise Server Pack 2014.02.0	Subset SPP ISO; Non-bootable ISO Filename: hpspp-mldlsl-2014.02.0.sles.7z
HP Service Pack for ProLiant - ProLiant ML/DL/SL Microsoft Windows Server Pack 2014.02.0	Subset SPP ISO; Non-bootable ISO Filename: hpspp-mldlsl-2014.02.0.win.7z
HP Service Pack for ProLiant – VMware Online FW	Subset SPP ISO; Non-bootable ISO Filename: hpspp-vmware-2014.02.0.7z

Update recommendation:

Optional - Users should update to this version if their system is affected by one of the documented fixes or if there is a desire to utilize any of the enhanced functionality provided by this version.

Supersedes:

HP Service Pack for ProLiant 2013.09.0(B)

Summary of Changes

Important Notes:

Release Summary

This summary of this SPP release is:

- Added new support for the HP ProLiant DL580 Gen8 Server
- Enhanced support (processor update) for the following HP ProLiant servers:
  - HP DL380e Gen8 Server
  - HP DL360e Gen8 Server
  - HP BL420 Gen8 Server Blade
  - HP SL4540/SL4545 Gen8 Server
  - HP ML350e Gen8 V2 Server
- Added operating system support for:
  - Microsoft Windows Server 2012 R2
  - Red Hat Enterprise Linux 5.10
  - Red Hat Enterprise Linux 6.5
  - VMware ESXi 4.1 U2
  - VMware ESXi 5.0 U3
  - VMWare vSphere 5.1 U2
  - VMWare vSphere 5.5
- Contains HP Smart Update Manager v6.2.0
- Added Simplified Chinese localization support

Fixes

The following issues from SPP 2013.09.0(B) have been fixed in SPP 2014.02.0:

- **The Offline DVD boot fails**
- **No Drivers are installed seen under Device status in Device manager for USB3.0 on Microserver on W2k8 Sp2 x32bit OS**

See the HP Service Pack for ProLiant Release Notes 2013.09.0(B), Known Issues section, for more information about these resolved issues.

Information on fixes for individual components can be found in the component release note section.

Enhancements

The following lists of firmware and software components are new additions to the SPP:

Added Firmware/Software

Windows

- HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2012 R2 x64 Editions
- HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2008
- HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2008 x64 Edition
- HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2012 x64 Edition
- HP Intel E1R Driver for Windows Server 2012 R2
- HP QLogic P3P Multifunction Driver for Windows Server 2012 R2
- HP Emulex 10GbE Driver for Windows Server 2012 R2
- HP Emulex 10GbE iSCSI Driver for Windows Server 2012 R2
- HP Intel ixn/ixt Drivers for Windows Server 2012 R2
- HP Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2
- HP Storage Fibre Channel Over Ethernet Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2
- HP Storage Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012 R2
- HP ProLiant Gen8 Supplemental Chipset Identifier for Windows
- Online ROM Flash Component for Windows - HP ProLiant DL580 Gen8 (P79) Servers
- Online ROM Flash Component for Windows - Smart Array P230i, P430, P431, P731m, P830i, and P830
- HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Windows
- HP Firmware Online Flash for Brocade Fibre Channel Host Bus Adapters - Windows Server 2012 R2 (x64)
- Online ROM Flash for Windows - Power Management Controller (HP ProLiant DL580 Gen8 Servers)
- Online ROM Flash Component for Windows - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives
- Online ROM Flash Component for Windows - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives
- Online ROM Flash Component for Windows - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives
- Online ROM Flash Component for Windows - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives
- Online ROM Flash Component for Windows - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives
- Online ROM Flash Component for Windows - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives
- Broadcom Advanced Control Suite for Windows Server 2008
- Broadcom Advanced Control Suite for Windows Server x64 Editions
- HP ProLiant Smart Array Embedded SATA RAID Controller Driver for Microsoft Windows Server 2012 and Microsoft Windows Server 2012 R2

Linux

- HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 5 Update 10 i686)
- HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 5 Update 10 x86_64)
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 10 i686
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 10 x86_64
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 9 i686
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 9 x86_64
- HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 6 Update 5 x86)
- HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 6 Update 5 x86_64).
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 5 i686
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 5 x86_64
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 4 i686
- HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 4 x86_64
- HP Mellanox EN Driver for InfiniBand adapters (SUSE LINUX Enterprise Server 11 SP3 x86)
- HP Mellanox EN Driver for InfiniBand adapters (SUSE LINUX Enterprise Server 11 SP3 AMD64/EM64T)
- HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP2 i586
- HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP2 x86_64
- HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP3 i586
- HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP3 x86_64
- Online ROM Flash Component for Linux - HP ProLiant DL580 Gen8 (P79) Servers
- Supplemental Update / Online ROM Flash Component for Linux - Smart Array P230i, P430, P431, P731m, P830i, and P830
- HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Linux
- Online ROM Flash for Linux - Power Management Controller (HP ProLiant DL580 Gen8 Servers)
- Supplemental Update / Online ROM Flash Component for Linux - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives
- Supplemental Update / Online ROM Flash Component for Linux - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives

VMware

- Online ROM Flash Component for VMware ESXi - HP ProLiant DL585 G7 (A16) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL685c G7 (A20) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL465c Gen8 (A26) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL385p Gen8 (A28) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant SL4545 G7 (A31) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL680c G7/BL620c G7 (I25) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL460c G7 (I27) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL490c G7 (I28) Servers

- Online ROM Flash Component for VMware ESXi - HP ProLiant BL420c Gen8 (I30) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL460c/WS460c Gen8 (I31) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL660c Gen8 (I32) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant ML350e Gen8/ML350e Gen8 v2 (J02) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL160 Gen8 (J03) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant ML310e Gen8 (J04) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL320e Gen8 (J05) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant MicroServer Gen8 (J06) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL580 G7 (P65) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL980 G7 (P66) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL380 G7 (P67) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL360 G7 (P68) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL380p Gen8 (P70) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL360p Gen8/DL360p Gen8 SE (P71) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant ML350p Gen8 (P72) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL360e Gen8/DL380e Gen8 (P73) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant SL4540 Gen8 (P74) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant SL230s/SL250s/SL270s Gen8 (P75) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL560 Gen8 (P77) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant ML310e Gen8 v2 (P78) Servers
- Online ROM Flash Component for VMware ESXi- HP ProLiant DL580 Gen8 (P79) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL320e Gen8 v2 (P80) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant SL210t Gen8 (P83) Servers
- Firmware CD Supplemental Update / Online ROM Flash Component for VMware ESXi - HP Integrated Lights-Out 3
- Firmware CD Supplemental Update / Online ROM Flash Component for VMware ESXi - HP Integrated Lights-Out 4
- HP QLogic P3P Online Firmware Upgrade Utility for VMware 5.x
- HP Broadcom Online Firmware Upgrade Utility for VMware 5.x
- Online Firmware Upgrade Utility (ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter: HP Part # 649281-B21
- Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter: HP Part # 644160-B21 and HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter: HP Part # 644161-B21
- Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649282-B21 and HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649283-B21
- Online Firmware Upgrade Utility (ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter: HP Part # 649281-B21
- Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter: HP Part # 644160-B21 and HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter: HP Part # 644161-B21
- Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649282-B21 and HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649283-B21

- Online ROM Flash Component for VMware ESXi - Smart Array P230i, P430, P431, P731m, P830i, and P830
- Online ROM Flash Component for VMware ESXi - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives
- Online ROM Flash Component for VMware ESXi - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives
- Online ROM Flash Component for VMware ESXi - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives
- Online ROM Flash Component for VMware ESXi - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives
- Online ROM Flash Component for VMware ESXi - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives
- Online ROM Flash Component for VMware ESXi - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives

For a complete list of components on the ISO, see the contents report on the ISO or the SPP documentation page.

Driver Update Disks (DUD) for Linux

DUDs for the following controllers for all Red Hat and SUSE supported operating systems can be found in the 'DUD' directory at the root of the ISO.

- HP Dynamic Smart Array SATA RAID Controller
- HP Smart Array B110i SATA RAID Controller
- HP ProLiant Smart Array Controller

Components Changes

Critical Components:

The following components are considered to be critical updates that released with this SPP. If a component is marked "critical" and was initially released with a previous version of the SPP, it will not be listed here. Please see the SPP Contents Report for a complete list of critical components.

Critical firmware components for Systems running a supported version of Windows:

- HP ProLiant Smart Array SAS/SATA Controller Driver for Windows Server 2012 x64 Edition
- Online ROM Flash Component for Windows - HP ProLiant DL580 G7 (P65) Servers
- Online ROM Flash Component for Windows - EG1200FCVBQ Drives
- HP ProLiant Dynamic Smart Array RAID Controller Driver for Windows Server 2008
- HP ProLiant Dynamic Smart Array RAID Controller Driver for Windows 2008 x64 Editions
- HP ProLiant Dynamic Smart Array RAID Controller Driver for Microsoft Windows Server 2012 and Microsoft Windows 2012 R2 x64 Editions

Critical firmware components for Systems running a supported version of Linux:

- Online ROM Flash Component for Linux - HP ProLiant DL580 G7 (P65) Servers
- Supplemental Update / Online ROM Flash Component for Linux - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives

- Supplemental Update / Online ROM Flash Component for Linux - MM0500FAMYT Drives
- Supplemental Update / Online ROM Flash Component for Linux - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives
- Supplemental Update / Online ROM Flash Component for Linux - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives
- Supplemental Update / Online ROM Flash Component for Linux - EF0300FARMU, EF0450FARMV, and EF0600FARNA drives
- Supplemental Update / Online ROM Flash Component for Linux - EH0072FARWC and EH0146FARWD Drives
- Supplemental Update / Online ROM Flash Component for Linux - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives
- Supplemental Update / Online ROM Flash Component for Linux - MM0500FBFVQ and MM1000FBFVR Drives
- Supplemental Update / Online ROM Flash Component for Linux - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB1000FAMYU and MB2000FAMYV Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB1000FBZPL and MB2000FBZPN drives
- Supplemental Update / Online ROM Flash Component for Linux - MB2000FBUCL and MB3000FBUCN drives
- Supplemental Update / Online ROM Flash Component for Linux - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ drives
- Supplemental Update / Online ROM Flash Component for Linux - EH0146FBQDC and EH0300FBQDD drives
- Supplemental Update / Online ROM Flash Component for Linux - EG1200FCVBQ drives
- Supplemental Update / Online ROM Flash Component for Linux - MB3000EBKAB Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives
- Supplemental Update / Online ROM Flash Component for Linux - MM0500GBKAK and MM1000GBKAL Drives
- Supplemental Update / Online ROM Flash Component for Linux - MB2000GCQXQ and MB3000GBKAC Drives

Critical firmware components for Systems running a supported version of VMware:

- Online ROM Flash Component for VMware ESXi - HP ProLiant BL680c G7/BL620c G7 (I25) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL460c G7 (I27) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant BL490c G7 (I28) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL580 G7 (P65) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL380 G7 (P67) Servers
- Online ROM Flash Component for VMware ESXi - HP ProLiant DL360 G7 (P68) Servers
- Online ROM Flash Component for VMware ESXi - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives
- Online ROM Flash Component for VMware ESXi - EF0300FARMU, EF0450FARMV, EF0600FARNA drive
- Online ROM Flash Component for VMware ESXi - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives
- Online ROM Flash Component for VMware ESXi - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives
- Online ROM Flash Component for VMware ESXi - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives
- Online ROM Flash Component for VMware ESXi - EH0072FARWC and EH0146FARWD Drives
- Online ROM Flash Component for VMware ESXi - EH0146FBQDC and EH0300FBQDD drives
- Online ROM Flash Component for VMware ESXi - MB1000FAMYU and MB2000FAMYV Drives
- Online ROM Flash Component for VMware ESXi - MB1000FBZPL and MB2000FBZPN drives

- Online ROM Flash Component for VMware ESXi - MB2000FBUCL and MB3000FBUCN drives
- Online ROM Flash Component for VMware ESXi - MM0500FBFVQ and MM1000FBFVR Drives
- Online ROM Flash Component for VMware ESXi - MM0500FAMYT Drives
- Online ROM Flash Component for VMware ESXi - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives
- Online ROM Flash Component for VMware ESXi - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ Drives
- Online ROM Flash Component for VMware ESXi - EG1200FCVBQ Drives
- Online ROM Flash Component for VMware ESXi - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives
- Online ROM Flash Component for VMware ESXi - MB2000GCQXQ and MB3000GBKAC Drives
- Online ROM Flash Component for VMware ESXi - MM0500GBKAK and MM1000GBKAL Drives
- Online ROM Flash Component for ESXi - MB3000EBKAB Drives

Compatibility

HP SUM and all components delivered in this Service Pack for ProLiant are tested together and meet the dependencies of the other components in the Service Pack for ProLiant.

Systems using software and firmware components delivered with the following products should be able to easily migrate to this SPP:

Product	Version
Service Pack for ProLiant	2013.09.0(B) 2013.02.0(B)

Note: When migrating directly from an older version of the SPP to the latest, please review the release notes for the versions being skipped to be aware of changes that have occurred during those releases.

Support

HP supports each SPP version for 12 months. Customers may choose to update to the current SPP from a previous SPP version. This is acceptable as long as the earlier version is within current version's 12 month support period. This means that customers may directly update their SPP by skipping intermediate releases within the 12 month support period. See the table in the Compatibility section for details on the components contained in earlier SPPs that can migrate to this SPP.

The end of a support period can be determined by the version number of the release. For example, if SPP 2013.02.0 is currently installed, support for it would end the last day of February, 2014. This is based on version 2013=year, 02= month, 0=full release id number. Sometimes it is necessary to release an SPP with a version that would have less than 12 months of support per the information noted above. In these cases, use the table below to determine support periods:

SPP Version	End of Support Period
2014.02.0	February 28, 2015

SPP Version	End of Support Period
2013.09.0(B)	September 30, 2014
2013.02.0(B)	February 28, 2014

- **IMPORTANT:** Note the "End of Support Period" dates in the table above. For example, if SPP 2012.01.0 is installed, support for that SPP ends on February 28, 2013. Upgrading to a newer SPP would be required to continue to receive SPP support.

Operating Systems

Supported Operating Systems

The following operating systems are supported for system software and firmware support:

- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2012 - All Editions
- Microsoft Windows Server 2012 Essentials
- Microsoft Windows Small Business Server 2011 Standard and Essentials
- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008 R2 Foundation Edition
- Microsoft Windows HPC Server 2008 R2
- Microsoft Windows Server 2008 x64 - All Editions
- Microsoft Windows Server 2008 x64 - Server Edition
- Microsoft Windows Server 2008 x64 - Server Core Edition
- Microsoft Windows Server 2008 W32 - All Editions
- Microsoft Windows Server 2008 W32 - Server Edition
- Microsoft Windows Server 2008 W32 - Server Core Edition
- Microsoft Windows Server 2008 Foundation Edition
- Red Hat Enterprise Linux 6 Server (x86-64)
- Red Hat Enterprise Linux 6 Server (x86)
- Red Hat Enterprise Linux 5 Server (x86-64)
- Red Hat Enterprise Linux 5 Server (x86)
- SUSE LINUX Enterprise Server 11 (AMD64/EM64T)
- SUSE LINUX Enterprise Server 11 (x86)

Firmware-only Support:

- VMware vSphere 5.5
- VMware vSphere 5.1 U2
- VMware ESXi 5.0 U3
- VMware ESXi 4.1 U2, U3 (offline only)
- Novell Open Enterprise Server (Linux) (offline only)

- Novell SUSE Open Linux (offline only)
- Oracle Enterprise Linux (offline only)
- Debian Linux (all releases) (offline only)

For more information on HP Operating Systems and Virtualization Software Support for HP ProLiant Servers, please visit our OS Support Site at: www.hp.com/go/ossupport.

Additional Information for using the SPP on Linux Operating Systems

The following operating systems are supported for system software, drivers, and firmware support:

- Red Hat Enterprise Linux 5.10 and 5.9
- Red Hat Enterprise Linux 6.5 and 6.4
- SUSE LINUX Enterprise Server 11 SP3 and SP2

Please refer to the following links for Technical Exception matrices for minimum OS support

Red Hat Enterprise Linux -
http://h18004.www1.hp.com/products/servers/linux/supportmatrix/rhel/exceptions/rhel-exceptions.html
SUSE LINUX Enterprise Server -
http://h18004.www1.hp.com/products/servers/linux/supportmatrix/sles/exceptions/sles-exceptions.html

Using the SPP on a supported Linux operating system offers the following choices:

- Using the software and firmware provided in the SPP.
- Using the firmware provided in the SPP and getting the software from the Software Delivery Repository (SDR) at http://downloads.linux.hp.com/SDR.
- Using the firmware provided in the SPP, the software utilities provided in the SPP or SDR, and getting the "in-distro" drivers from the operating system distribution.

Additional Information for using the SPP on VMware Operating Systems

The following operating systems are supported for firmware support:

- VMware vSphere 5.5
- VMware vSphere 5.1 U2
- VMware ESXi 5.0 U3
- VMware ESXi 4.1 U2, U3 (offline only)

The SPP can deploy firmware to a system running a supported VMware operating system in an online mode. See the Summary of Changes section for the list of supported online firmware. Since the VMware drivers are not part of the SPP, they can be obtained from the VMware base image or HP Custom image, available from the HP download page. Drivers added to the HP Custom image are available at HP vibsdepot. For a consolidated recipe of firmware and driver support, please review the VMware FW and Software Recipe document.

The HP ProLiant Gen8 servers require the use of an HP custom image of HP ProLiant. This image contains the network and storage drivers that are required to install on the HP ProLiant Gen8 servers. Because the current

VMware images do not contain the latest drivers, they cannot be used to install on HP ProLiant Gen8 servers. This same requirement was in place for the HP ProLiant Blade System servers.

To determine support for these OS's, see the HP ProLiant Server VMware Support Matrix at:
http://h18004.www1.hp.com/products/servers/vmware/supportmatrix/hpvmware.html

Prerequisites

Component Prerequisites

Some components have prerequisites. Check the individual components for their prerequisites.

NOTE: HP SUM and the components that need to be configured must be on writable media

HP SUM and the components that need to be configured must be on writable media in order for the configuration to occur. Copy the entire SPP contents to writeable media. This means that if the ISO has been mounted, the components will not be able to be configured.

HP SUM Prerequisites

Operating systems and devices

IMPORTANT: Before deploying any components to a system, be sure that a recent backup of the system is available in the event the deployment procedure fails.
Enable the network ports that HP SUM uses.
HP SUM uses the host system's language settings to determine which language it displays.

Supported bundles

- HP SPP – The minimum HP SPP version is 2012.10.0
- HP Integrity bundles – HP SUM 6.0.1 supports all currently released HP Integrity bundles

Supported browsers

- Internet Explorer version 9 or later
- Firefox version 17 ESR or later
- Chrome version 24 or later
- Screen resolution of 1024 x 768

Supported host operating systems

HP SUM supports running on the following operating systems:

- Windows 2008 (and variants)
- Windows 2012 (and variants)
- Red Hat Enterprise Linux 5.x
- Red Hat Enterprise Linux 6.x
- SUSE Linux Enterprise Server 10.x
- SUSE Linux Enterprise Server 11.x

NOTE: HP SUM does not support adding Windows nodes or deploying components to Windows

nodes from a Linux host.

Linux dependencies

- ld-linux-x86-64.so.2()(64bit)
- ld-linux-x86-64.so.2(GLIBC_2.3)(64bit)
- libcrypt.so.1()(64bit)
- libcrypt.so.1(GLIBC_2.2.5)(64bit)
- libc.so.6()(64bit)
- libc.so.6(GLIBC_2.2.5)(64bit)
- libc.so.6(GLIBC_2.3.2)(64bit)
- libc.so.6(GLIBC_2.3.4)(64bit)
- libc.so.6(GLIBC_2.3)(64bit)
- libc.so.6(GLIBC_2.4)(64bit)
- libdl.so.2()(64bit)
- libdl.so.2(GLIBC_2.2.5)(64bit)
- libgcc_s.so.1()(64bit)
- libgcc_s.so.1(GCC_3.0)(64bit)
- libm.so.6()(64bit)
- libm.so.6(GLIBC_2.2.5)(64bit)
- libpthread.so.0()(64bit)
- libpthread.so.0(GLIBC_2.2.5)(64bit)
- libpthread.so.0(GLIBC_2.3.2)(64bit)
- librt.so.1()(64bit)
- librt.so.1(GLIBC_2.2.5)(64bit)
- libstdc++.so.6()(64bit)
- libstdc++.so.6(GLIBCXX_3.4.5)(64bit)
- libstdc++.so.6(GLIBCXX_3.4)(64bit)
- libuuid.so.1()(64bit)libz.so.1()(64bit)

HP SUM Installation instructions

Installing HP SUM varies based on your download format.

HP SUM ISO

Mount the ISO on your system as a drive.

HP SUM zip file

1. Extract the zip file in a directory where you have read/write permissions.
2. If you are unzipping HP SUM on a Linux host, change the permissions on the following files so they have execute permissions:
   - \hpsum
   - \gatherlogs.sh
   - \clean-cache.sh
   - \port_targets.sh
   - \x64\hpsum_bin_x64
   - \x64\hpsum_service_x64
   - \x64\hponcfg
   - \x86\hpsum_bin_x86
   - \x86\hpsum_service_x86
   - \x86\hponcfg

Launching HP SUM

Launching HP SUM from the HP SUM ISO the first time

The first time you run HP SUM, make sure you run it in online mode, because HP SUM does not include any component updates. If you want to run HP SUM in offline mode to perform updates automatically, run HP SUM in online mode, create a custom ISO, burn the ISO to a DVD or USB Key, and then close HP SUM and reboot the system into the ISO's offline mode.

Online mode: Runs HP SUM on a Windows or Linux operating system.

1. Mount the ISO on your host.
2. Open Start.html, found in the root directory of the ISO, in a supported browser.
3. Follow the directory on the screen.

Launching HP SUM from a custom ISO that includes updates

- Online mode: Follow the same instructions for launching HP SUM from the ISO the first time.
- Offline mode: Runs HP SUM from the Linux kernel included in the ISO. Offline mode includes two modes:
  - Automatic mode: Firmware components are installed without your interaction. Automatic mode will begin by default 30 seconds after you install a DVD or USB key with the ISO burned on it.

    NOTE: Booting the HP SUM ISO from iLO virtual media is only supported in Automatic mode. If you try to use interactive mode, you might experience performance issues.
  - Interactive offline mode: Use the GUI to update components.
  - When HP SUM launches,
  - Follow the instructions on the screen.

Launching HP SUM from the zip download

Navigate to the directory /hpsum and then double-click hpsum.bat (Windows) or hpsum (Linux).

Launching HP SUM from the RPM

From the HP SUM path, type hpsum.

Deployment Instructions

General

Follow these steps to install the components found on this SPP:

1. Download the SPP 2014.02.0.iso or subset iso file from the SPP download page, www.hp.com/go/spp/download.
2. Determine how to access the data on the ISO – bootable USB key, mounted ISO, mounted DVD, etc. Use the appropriate tool to obtain the ISO in the desired format.

   Note: The **HP USB Key Utility for Windows version 1.7.0.0** or later should be to put this SPP on a bootable USB key and is also found on the SPP ISO.

3. Determine how to initiate deployment to the targets using the SPP – Offline mode or Online mode:
   a. Online mode - Runs on a Windows® or Linux hosted operating system
      NOTE: online firmware update is only supported on a remote VMware host

b. Offline mode - Server boots to the SPP ISO (Bootable ISO only)
    i. Automatic mode - Firmware components update without interaction
    ii. Interactive mode - Onscreen instructions guide the user to update firmware components

4. Initiate deployment.

To initiate deployment in **Online mode**:

- Go directly to the HP SUM deliverable to launch it:
    - Windows: /hp/swpackages/hpsum.exe
    - Linux: /hp/swpackages/hpsum
- For VMware hosts, select the host to update as a remote target. Online firmware update on a VMware host requires the HP Insight Management WBEM providers to be installed on the VMware host. For information, see the HP SUM User Guide and HP ProLiant Best Practices Implementers Guide.
- To review the EULA, locate *Start.htm* which is found in the root of the ISO.
- Open the html file in one of the supported browsers:
    - Microsoft Internet Explorer 9 or later
    - Mozilla Firefox 17 ESR or later
    - Chrome 24 or later
    - Screen resolution of 1024 x 768
- Follow the instructions on the screen.

To initiate deployment in **Offline mode**:

- Boot the server to the SPP using one of the supported methods including mounting the ISO or DVD or using a bootable USB key.
- Select either Automatic mode or Interactive mode.
    - If Automatic mode is selected, the firmware will be automatically updated on the server without any further interaction.
    - If Interactive mode is selected, follow the instructions on the screen.
- Select the **Firmware Update** option on the screen to start HP SUM

Using a PXE Server to Deploy Components from the full SPP ISO over a network

Follow these steps to use a PXE server to deploy components from the full SPP ISO over a network.

Note: The files needed to configure the menu system for use with a PXE server can be found in the pxe directory on the full SPP ISO.

Prerequisites

The following is required before proceeding with the configuration:

- The user must have a good working knowledge of PXE and TFTP.
- A network with a DHCP server on it.
- A TFTP server configured on the same network as the DHCP server.
- A network file server hosting the ISO images and can be accessed by a PXE booted system.
- PXELinux (http://syslinux.zytor.com/wiki/index.php/PXELINUX)

The use of a Linux TFTP server and the TFTP package (http://www.kernel.org/pub/software/network/tftp) is assumed. Other TFTP servers should work similarly.

Setup

Before proceeding with the configuration, ensure that the TFTP server and PXELinux configuration are setup and configured properly. To set up PXE boot for the SPP:

1. Copy the SPP ISO image to the network file system, and note its location. NFS and Windows® file shares are supported.
2. For this example, the NFS and path to the ISO image used is 192.168.0.99/path/to/spp/image/SPP2014020.2014_0128.5.iso. Test the network file system to ensure that is accessible before proceeding.
3. The /system directory of the ISO image will need to be accessed, either by burning the ISO image, mounting the ISO image, or extracting it using a third-party tool.
4. Copy all the files from the /system directory of the ISO image to your TFTP server so that it is accessible by the TFTP software.

Configuring PXELINUX

Follow these steps to configure PXELINUX:

1. Using the isolinux.cfg file from the /system/ directory of the ISO as a guide, copy the labeled targets to the PXELinux configuration file. The entire file does not need to be included:

   ```
   label sos
       MENU LABEL Automatic Firmware Update Version 2014.02.0
       kernel hpboot_v.c32
       append vmlinuz initrd=initrd.img media=cdrom rw root=/dev/ram0 ramdisk_size= init=/bin/init loglevel=3
       ide=nodma ide=noraid nopat pnpbios=off vga=791 splash=silent hp_fibre showopts noexec32=off
       numa=off nox2apic TYPE=AUTOMATIC AUTOPOWEROFFONSUCCESS=no AUTOREBOOTONSUCCESS=yes

   label vsos
       MENU LABEL Interactive Firmware Update Version 2014.02.0
       kernel hpboot_v.c32
       append vmlinuz initrd=initrd.img media=cdrom rw root=/dev/ram0 ramdisk_size= init=/bin/init loglevel=3
       ide=nodma ide=noraid nopat pnpbios=off vga=791 splash=silent hp_fibre showopts noexec32=off
       numa=off nox2apic TYPE=MANUAL AUTOPOWEROFFONSUCCESS=no

   label sos_poweroff
       MENU HIDE Automatic & POWEROFF Firmware Update Version 2014.02.0
       kernel hpboot_v.c32
       append vmlinuz initrd=initrd.img media=cdrom rw root=/dev/ram0 ramdisk_size= init=/bin/init loglevel=3
       ide=nodma ide=noraid nopat pnpbios=off vga=791 splash=silent hp_fibre showopts noexec32=off
       numa=off nox2apic TYPE=AUTOMATIC hp_poweroff
   ```

2. Replace the lines “kernel hpboot_v.c32” with “kernel vmlinuz”.
3. Remove vmlinuz from the append line.

   Note: The paths to files on the TFTP server are vmlinuz and initrd.img. They must be modified to include any directories or naming conventions that are on the TFTP server.

4. Replace “media=cdrom” with “media=net” on the append line
5. Specify the ISO image path. For the PXE booted server to find the ISO Image, add the ISO Image path to the append line in the PXELINUX configuration file. Add the following arguments:

iso1=nfs://192.168.0.99/path/to/spp/image/ SPP2014020.2014_0128.5.iso
iso1mnt=/mnt/bootdevice

The iso1 parameter helps the PXE booted SPP locate the ISO image. The iso1mnt parameter tells the PXE booted FWDVD where the iso1 image must be mounted.

The final configuration file must be similar to the following example:

label sos
MENU LABEL Automatic Firmware Update Version 2014.02.0
kernel vmlinuz
append initrd=initrd.img media=net rw root=/dev/ram0 ramdisk_size= init=/bin/init loglevel=3 ide=nodma ide=noraid nopat pnpbios=off vga=791 splash=silent hp_fibre showopts noexec32=off numa=off nox2apic TYPE=AUTOMATIC AUTOPOWEROFFONSUCCESS=no AUTOREBOOTONSUCCESS=yes iso1=nfs://192.168.0.99:/path/to/spp/image/SPP2014020.2014_0128.5.iso iso1mnt=/mnt/bootdevice

label vsos
MENU LABEL Interactive Firmware Update Version 2014.02.0
kernel vmlinuz
append initrd=initrd.img media=net rw root=/dev/ram0 ramdisk_size= init=/bin/init loglevel=3 ide=nodma ide=noraid nopat pnpbios=off vga=791 splash=silent hp_fibre showopts noexec32=off numa=off nox2apic TYPE=MANUAL AUTOPOWEROFFONSUCCESS=no iso1=nfs:// 192.168.0.99:/path/to/spp/image/ SPP2014020.2014_0128.5.iso iso1mnt=/mnt/bootdevice

label sos_poweroff
MENU HIDE Automatic & POWEROFF Firmware Update Version 2014.02.0
kernel vmlinuz
append initrd=initrd.img media=net rw root=/dev/ram0 ramdisk_size= init=/bin/init loglevel=3 ide=nodma ide=noraid nopat pnpbios=off vga=791 splash=silent hp_fibre showopts noexec32=off numa=off nox2apic TYPE=AUTOMATIC hp_poweroff iso1=nfs:// 192.168.0.99:/path/to/spp/image/ SPP2014020.2014_0128.5.iso iso1mnt=/mnt/bootdevice

Additional ISO images can be added by specifying the additional iso# and iso#mnt arguments, for example, iso2=/path/to/iso2.iso iso2mnt=/mnt/iso2.

Supported network file systems

The following network file systems are supported for use with PXE booting:

NFS:

iso1=nfs://192.168.0.99/path/to/spp/image/ SPP2014020.2014_0128.5.iso iso1mnt=/mnt/bootdevice

NFS volumes are mounted with the following options:

- -o ro
- nolock

The mount options can be explicitly set with the iso#opts parameter

iso1opts="rsize=32768,ro,nolock"

Windows® operating systems:

iso1=smbfs://192.168.0.99/share/path/to/ spp/image/ SPP2014020.2014_0128.5.iso
iso1mnt=/mnt/bootdevice

Windows® operating systems with login credentials:

iso1=smbfs://user:password@192.168.0.99/share/path/to/ spp/image/ SPP2014020.2014_0128.5.iso
iso1mnt=/mnt/bootdevice

Once these steps have been completed, the SPP components are ready to be deployed using the PXE boot functionality.

Known Limitations

The following are known issues and limitations with the smart components and the version of HP SUM delivered with this SPP. In addition to reviewing the content presented here, please review the Customer Advisories found on the "**Hot Fixes & Advisories**" page which is available by selecting the "**Hot Fixes & Advisories**" tab (for the most recently released SPP) or by selecting the "**SPP Release Archive**" tab (for all released SPPs) on the SPP Download page, www.hp.com/go/spp/download.

General

Drivers and/or enablement kits must be installed prior to detecting and updating some hardware and firmware - HP SUM may need to be run twice for all firmware components to be presented for installation

Drivers and/or enablement kits must be installed prior to detecting and updating some hardware and firmware. There are several scenarios when HP SUM may need to be run twice for all firmware components to be presented for installation. This is due to a requirement that drivers are needed in order for HP SUM to discover some hardware and thus the needed firmware. After the drivers are installed for the first time and the system rebooted, HP SUM needs to be run again for all of the firmware components to be presented for installation. The scenarios are:

1) When performing online updates with HP SUM on a fresh installation of a supported Windows® or Linux OS, all of the appropriate drivers are listed on the Select Bundle or Select Components screen but not all of the applicable firmware components may be listed.
2) Network Adapters (NIC's), Host Bus Adapters (HBA's), and iLO require a driver or enablement kit to be installed in order to be recognized by HP SUM.
3) When running HP SUM on Windows, if the iLO Channel Interface Driver is not installed, the iLO FW will show a version of 'None' as the installed version and 'Ready for Installation' as the status on the Select Bundle or Select Component page. This applies to firmware for iLO 2, 3, and 4. When you try to update the firmware, it may fail to update if it is already up to date.
4) **Broadcom NICs are not discovered by HP SUM unless the appropriate driver is installed and all Ethernet ports are up.** You can bring up the Ethernet port by using the following command:

   # ifup ethx

   or

```
# ifconfig ethx up
```

To update the firmware for Broadcom NIC, use the following steps:

- Install the appropriate Windows or Linux driver found in the SPP. If updating a Linux server, the driver can also be retrieved from the SDR or the Linux distro.
- Enable all the Ethernet ports
- Run the Broadcom FW upgrade component

Components

Chinese language version of Insight Diagnostics does not load

When Chinese is selected as the active language through the offline menu, the language switches back to English and Insight Diagnostics fails to load in Chinese. This issue will be resolved in a future release.

Offline BIOS updates are not supported for HP Brocade PCIe Fibre Channel Host Bus Adapters and for Brocade Fibre Channel HBAs for c-Class BladeSystems

HP Service Pack for ProLiant Offline BIOS updates for HP Brocade PCIe Fibre Channel Host Bus Adapters and Brocade Fibre Channel HBAs for c-Class BladeSystem are not supported. When booting directly into the HP Service Pack for ProLiant (SPP) and attempting to update the BIOS on HP Brocade HBA's (an offline update), BIOS updates for HP Brocade HBA's and mezzanine cards are not available.

Proper deployment of the HP Fibre Channel Enablement Kit for Linux, Emulex requires uninstalling any previous Emulex Enablement Kits and ensuring the libHBAAPI package is installed.
In order to ensure proper installation of the HP Fibre Channel Enablement Kit for Linux, Emulex, from HP Service Pack for ProLiant, 2014.02.0 take the following steps. 1. Uninstall any previous Emulex enablement kits prior to installation of the new kit. 2. Ensure that the libHBAAPI package is installed prior to installation of the new component.

The 'Force' option may need to be used when deploying the HP Firmware Online Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters, Windows and Linux

HP SUM may report that a card's firmware is already up-to-date for deployment, even if the available firmware is a later version than the firmware on the Emulex 4 Gb and 8 Gb Fibre Channel Adapters. The 'Force' option will need to be used when installing the newer version of firmware.

When updating Windows Server 2012 systems using HP SUM, HP Storage Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012 R2 and HP Firmware Online Flash for Brocade Fibre Channel Host Bus Adapters - Windows Server 2012 R2 (x64), may incorrectly appear as available for update

When updating Windows Server 2012 (non-R2) systems using HP Smart Update Manager (HP SUM), the following components may incorrectly appear as available for deployment and two driver components and two firmware components may be shown in the HP SUM graphical user interface as available for deployment on Windows 2012 target nodes. Those components are the HP Storage Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012 R2 and the HP Firmware Online Flash for Brocade Fibre Channel Host Bus Adapters - Windows Server 2012 R2 (x64). For Microsoft Windows Server 2012 (non-R2) target nodes, select:

Driver 3.2.1.0, cp019320 Firmware 2013.08.01, cp019374 Deselect: Driver 3.2.3.1, cp021773 Firmware 2013.11.01, cp022023

Installation of the HP Storage Fibre Channel Adapter Kit for the Emulex Storport Driver or the HP Storage Fibre Channel Over Ethernet Adapter Kit for the Emulex Storport Driver may incorrectly report that a failure occurred

When installing the HP Storage Fibre Channel Over Ethernet (FCoE) Adapter Kit for Emulex Driver version 2.76.3.1 or the HP Storage Fibre Channel (FC) Adapter Kit for Emulex Driver version 2.76.3.1, the component may incorrectly report that a failure has occurred. If a failure has been reported, check the Emulex AutoPilot installation log on the target system (C:\Program Files[(x86)]\Emulex\AutoPilot Installer\{FC|FCoE}\reports\report_{DATE}.txt) to ensure that driver installed correctly. The "Task results" section should not have any errors, and you will see a message noting you must restart your computer. If there are errors, investigate and correct those, else reboot the system to complete the installation. Following the reboot if the driver version reported by Windows Device Manager is not 2.76.3.1, then a driver installation failure has occurred and must be investigated.

The 2014.02.0 version of the SPP does not contain either the Emulex or QLogic VMware Firmware components.
The VMware Emulex and QLogic Firmware components are not included in the 2014.02.0 version of the SPP. Updates to both firmware components will be provided in a future release.

Mpt2sas for Red Hat Linux 6.5 is not available in this version of the SPP
Support for HP H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 6.5 will be available in a future release.

The SPP cannot be installed from a mounted Virtual USB when performing offline flashing

While performing offline flashing, a mounted Virtual USB, bootable with SPP 2013.02.0 through iLO, the server will boot through the USB and stop responding.

HP SUM updates the HP Intel ixn/ixt driver for Windows but lists it as ready to install

HP SUM properly updates the HP Intel ixn/ixt driver for Windows, but lists the component as ready to update and install after the update. The driver is updated, but upon completion the driver version is incorrectly listed. Thus, the component is incorrectly listed as ready to update even though it already has.

The SAS/SATA Notifier shows a failed dependency when the server has only HP Smart Array P430, P431, and P731m controllers installed

The SAS/SATA Event Notification Service logs the error message Failed Dependency and states a dependency for SAS/SATA controller drivers to be installed. However, even with the latest version of the drivers installed, 62.2.0.64, the Failed Dependency error is still logged. This occurs only with the the HP Smart Array P430, P431, and P731m controllers. Please note, the drivers for the HP Smart Array P430, P431, and P731m controllers are not included in the 2013.09.0 (B) version of the SPP.

The SPP System Information tab fails to display the Storage Controllers Information

During an offline firmware update using the SPP 2013.09.0(B), the system information will not display the Storage Controllers information. This information can be viewed either from RBSU, iLo, and/or an HP SUM report.

HP SUM displays 'update returned an error' when attempting to deploy the Brocade "HP Fibre Channel Enablement Kit for Linux"

HP SUM displays 'update returned an error' when attempting to deploy the Brocade "HP Fibre Channel Enablement Kit for Linux" because the Linux FC Driver Kit for HP Brocade HBAs and mezzanine HBAs must be installed prior to installing the Brocade Fibre Channel Enablement Kit for Linux(HP-FC-Brocade-Enablement-Kit-2.0.0.0-1.x86_64.rpm).

The HP Firmware Flash for Emulex adapters (NIC and CNAs) for Linux components cannot be installed unless an HP supplied driver (out of box) is installed

These components cannot be installed either from the command line or from HP SUM without an HP supplied driver installed. During online flashing in HP SUM the HP Firmware Flash for Emulex Adapters on Linux displays failed as the cards will not be detected in these environments. The only workaround is to use the Offline firmware components.

HP VC 1/10Gb or HP VC 1/10Gb-F Modules are supported and tested with the SPP

Important limitations:

1. Validation and support for VC 3.6x on SPPs beyond 2012.06.0 (B) is targeted to customers that have HP VC 1/10Gb or HP VC 1/10Gb-F Modules in their domain. New functionality in SPPs beyond 2012.06.0 (B) may be limited or unsupported with VC 3.6x. These limitations will be documented in the updated VC 3.6x Release Notes.
2. VC 3.6x domains without one of these modules are not supported by SPPs beyond 2012.06.0 (B).
3. VC 3.6x is not included in SPPs beyond 2012.06.0 (B), but is validated with them. Release Notes for appropriate versions of both the SPP and Virtual Connect will state that HP VC 1/10Gb or HP VC 1/10Gb-F Modules are supported and tested with the SPP.

HP SUM

Note: Please review the HP SUM 6.2.0 Release Notes for additional information including known limitations on HP SUM.

HP SUM does not save custom ISOs if the directory path includes Chinese or Japanese characters

Suggested Action: Do not include Chinese or Japanese characters in directory paths. This is a known issue that will be resolved in a future version of HP SUM.

HP SUM does not work properly in Internet Explorer 8

Suggested Action: Use Internet Explorer 9 and later.

HP SUM displays “Update returned an error” when deploying the HP Fibre Channel Enablement Kit for Linux

Suggested Action: View the update log. If you see the error Enablement kit is not supported for the installed driver version, use the following instructions to work around this issue:
1. Install HBA drivers before installing the Enablement kit.
2. Make sure the driver and Enablement kit version match.
This known issue will be resolved in a future version of HP SUM.

HP SUM does not properly detect Windows 2012 R2 components

Suggested Action: Run the smart component individually if HP SUM does not apply an update as expected. This will be fixed in a future release of HP SUM.

Additional Resources

Web Experience

Web Page	Information/Description
Resources on the SPP Download Page: www.hp.com/go/spp/download	
Hot Fixes and Customer Advisory Listing	Information on Hot Fixes and their associated Customer Advisories (CA), Resolved CAs, and Open CAs is available online by clicking the "**Hot Fixes and Advisories**" button on the SPP Download page. This web page will be updated on a regular basis as new information becomes available.
SPP Release Archive	Downloads and Hot Fixes and CAs for all versions of the SPP within the one year support window are available for access here. If there are any Supplements corresponding with any SPP on this page, each Supplement can be downloaded from the link with the Supplement's name in the SPP highlights section of the corresponding SPP.
HP Smart Update Video Library	A series of videos is available that offers information about the SPP, HP SUM, and firmware best practices including how you can plan and perform updates in your environment. The videos can be found online by clicking the "**Smart Update Video Library**" link on the SPP Download page or using the vanity URL, http://www.hp.com/go/smartupdate/video.
SPP Supplement Download	SPP Supplements can be downloaded from the link with the Supplement's name in the SPP highlights section.
Resources on the SPP Documentation Page: www.hp.com/go/spp/documentation	
SPP Server Support Guide	The SPP Server Support Guide lists all of the components included in the SPP and the servers that they are supported on and is available online on the SPP Documentation page.
SPP Contents Report	The SPP Contents Report documents all of the software and firmware on this SPP by the product name, version number, and the associated filename and is available online on the SPP Documentation page.
Linux SDR	The Linux SDR, http://downloads.linux.hp.com/SDR/, contains the software and firmware contents of the SPP. It provides a way for the user to deploy the software components of the SPP using native Linux tools.
VMware SDR - vibsdepot	The VMware SDR - vibsdepot, http:/vibsdepot.hp.com/, is a one-stop repository that provides access to HP developed bundles along with device drivers that are part of the HP Customized VMware images. There are also links to the VMware recipe documents that are associated with an SPP.
Resources on HP SUM Documentation Page: http://www.hp.com/go/hpsum/documentation	

Web Page	Information/Description
HP SUM Release Notes	The HP SUM Release Notes provides information including fixes, enhancements, and known limitations for HP SUM. Reference the HP SUM Release Notes for the most current information on HP SUM.
HP SUM User Guide	The HP SUM User Guide describes the User Interface in detail, has instructions for Scripted Deployment and other advanced topics, and offers Troubleshooting instructions.

Hot Fixes

Hot Fixes and their associated Customer Advisories are released between SPP releases. Hot Fix components are tested against this SPP.

The Hot Fixes and the Customer Advisories for the latest SPP can be found by selecting the "**Hot Fixes & Advisories**" tab on the SPP Download page, www.hp.com/go/spp/download. On this page, you will be able to review the Customer Advisory to determine if the Hot Fix applies to your configuration and determine which component(s) you need to download.

To update your configuration with a Hot Fix:

1. Click the grey + expander to the left of the Hot Fix CA to expand the list of associated downloadable component(s).
2. Click the Download button to download the component to a repository of your choice.
3. Deploy it using HP SUM.

These documented Hot Fixes are supported as part of the SPP throughout the SPP support period.

If you are looking for Hot Fixes for SPPs other than the latest one, go to the SPP Release Archive page, which is available from the SPP Download page, www.hp.com/go/spp/download. Find the entry for the SPP and select the link to the CA page for that SPP.

SPP Supplements

An SPP Supplement is a bundle containing software and/or firmware components with HP SUM as the deployment tool. It may include support for a new operating system update or functionality that is not included in the SPP but works with the components in the SPP. The software and firmware included in the Supplement will provide support for functionality that is required outside a normal SPP release cycle. Supplements allow HP to deliver support when it is needed so customers do not have to wait on a full SPP´s availability. Support for SPP Supplements are included as part of the associated SPP's support period.

Each SPP Supplement´s version number will match the version of its corresponding SPP. Supplement Release Notes will be available and will include information on the components in the bundle. If the Supplement´s contents include Linux components, the components will also be available on the SDR. Once released, the functionality of the SPP Supplement supporting new operating system support content is included in the next available SPP.

SPP Supplements can be downloaded from the SPP Information section on the SPP Download (http://www.hp.com/go/spp/download). The Release Notes can be found on the SPP Information Library site, (http://www.hp.com/go/spp/documentation).

There are no Supplements associated with this SPP at the time this document was published. To see if a Supplement is available, please check the SPP Download (http://www.hp.com/go/spp/download).

Component Release Notes

Information for all of the firmware and software components included in the /hp/swpackages directory is documented here. The following is a list of the information included for the components. A section is included only if the component has corresponding information.

- Component name
- Component version
- Upgrade Requirement
- Important Notes
- Prerequisites
- Fixes
- Enhancements
- Supported Devices and Features

BIOS - System ROM
Driver - Chipset
Driver - Lights-Out Management
Driver - Network
Driver - Storage
Driver - Storage Controller
Driver - Storage Fibre Channel
Driver - Storage Tape
Driver - System Management
Driver - USB
Driver - Video
Firmware - Blade Infrastructure
Firmware - Lights-Out Management
Firmware - Network
Firmware - Power Management
Firmware - SAS Storage Disk
Firmware - SATA Storage Disk
Firmware - Storage Controller
Firmware - Storage Fibre Channel
Firmware - Storage Tape
Software - Lights-Out Management
Software - Management
Software - Network
Software - Storage Controller
Software - Storage Fibre Channel HBA
Software - System Management

BIOS - System ROM

Top

Online ROM Flash Component for Linux - HP ProLiant BL260c G5 (I20) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL260c G5 System ROM - I20

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

04/26/2010

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL280c G6 (I22) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL280c G6 System ROM - I22

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL2x220c G5 (I19) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL2x220c G5 System ROM - I19

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

04/26/2010

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL2x220c G6 (I26) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL2x220c G6 System ROM - I26

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL2x220c G7 (I29) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL2x220c G7 System ROM - I29

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This

revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL420c Gen8 (I30) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL420c Gen8 System ROM - I30

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL460c (I15) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c System ROM - I15

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-

volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant BL460c G5 (I23) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c G5 System ROM - I23

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-

volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant BL460c G6/WS460c G6 (I24) Servers

Version: 2013.10.01 **(Optional)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c G6 and WS460c G6 System ROM - I24

Release Date:

10/01/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

07/02/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the system may experience a Blue Screen when booting Microsoft Windows 2003 with the 07/02/2013 revision of the System ROM. This issue only occurs with the 07/02/2013 revision of the System ROM and does not affect any previous revisions.

Addressed an issue where Wake On LAN would not function properly with certain Networking devices.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the system may experience a Blue Screen when booting Microsoft Windows 2003 with the 07/02/2013 revision of the System ROM. This issue only occurs with the 07/02/2013 revision of the System ROM and does not affect any previous revisions.

Addressed an issue where Wake On LAN would not function properly with certain Networking devices.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL460c G7 (I27) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c G7 System ROM - I27

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL460c/WS460c Gen8 (I31) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL460c/WS460c Gen8 System ROM - I31

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL465c G1/BL465c G5/BL465c G6 (A13) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL465c G1/G5/G6 System ROM - A13

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/08/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant BL465c G7 (A19) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL465c G7 System ROM - A19

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

08/15/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant BL465c Gen8 (A26) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL465c Gen8 System ROM - A26

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

06/09/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to

attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL480c (I14) Server

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL480c G1 System ROM - I14

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-

volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant BL490c G6 (I21) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL490 G6 System ROM - I21

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon

Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this

issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL490c G7 (I28) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL490c G7 System ROM - I28

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL495c G5/BL495c G6 (A14) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL495c G5/G6 System ROM - A14

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/09/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant BL660c Gen8 (I32) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL660c Gen8 System ROM - I32

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/15/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL680c G5 (I17) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL680c G5 System ROM - I17

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant BL680c G7/BL620c G7 (I25) Servers

Version: 2013.07.01 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL620c/BL680c G7 System ROM - I25

Release Date:

07/01/2013

Last Recommended or Critical Revision:

07/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant BL685c G1/BL685c G5 (A08) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL685c G1/G5 System ROM - A08

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/14/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant BL685c G6 (A17) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL685c G6 System ROM - A17

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/09/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant BL685c G7 (A20) Servers

Version: 2013.06.04 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL685c G7 System ROM

Release Date:

06/04/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

12/17/2012

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Added support for Single Root I/O Virtualization (SR-IOV). SR-IOV can provide performance benefits in virtualized environments if the Operating System/hypervisor and installed I/O card support SR-IOV. This functionality is enabled via a ROM-Based Setup Utility (RBSU) Advanced System ROM Option. It is disabled by default. When enabled, the System ROM will configure devices that support SR-IOV for use under a supported Operating System. Please consult the proper Operating System and Network Adapter documentation for a list of supported configurations.

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Enhancements

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Added support for Single Root I/O Virtualization (SR-IOV). SR-IOV can provide performance benefits in virtualized environments if the Operating System/hypervisor and installed I/O card support SR-IOV. This functionality is enabled via a ROM-Based Setup Utility (RBSU) Advanced System ROM Option. It is disabled

by default. When enabled, the System ROM will configure devices that support SR-IOV for use under a supported Operating System. Please consult the proper Operating System and Network Adapter documentation for a list of supported configurations.

Online ROM Flash Component for Linux - HP ProLiant DL160 Gen8 (J03) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL160 Gen8 System ROM - J03

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL320 G5/DL320s (W04) Servers

Version: 2008.06.10 **(Optional)**

Enhancements

Added support for Generation 2 (3.0 Gb/s) SATA Hard Drives. This revision of the System ROM is required for proper operation of the embedded SATA solution when a Generation 2 (3.0 Gb/s) SATA hard drive is installed in the server (DL320 G5 only).

Online ROM Flash Component for Linux - HP ProLiant DL320 G6/ML330 G6 (W07) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System

ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML330 G6 and DL320 G6 System ROM - W07

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors.

This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a

result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL320e Gen8 (J05) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320e Gen8 System ROM - J05

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to

boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL320e Gen8 v2 (P80) Servers

Version: 2013.11.08 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320e Gen8 v2 System ROM - P80

Release Date:

11/08/2013

Last Recommended or Critical Revision:

09/01/2013

Previous Revision:

09/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL360 G5 (P58) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL360 G5 System ROM - P58

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the

System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL360 G6 (P64) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL360 G6 System ROM - P64

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

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Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL360 G7 (P68) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL360 G7 System ROM - P68

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This

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Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

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Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL360e Gen8/DL380e Gen8 (P73) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360e/DL380e Gen8 System ROM - P73

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL360p Gen8/DL360p Gen8 SE (P71) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360p Gen8/DL360p Gen8 SE System ROM - P71

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL365 G1/DL365 G5 (A10) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL365 G1/G5 System ROM - A10

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

07/17/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL380 G5 (P56) Server

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL380 G5 System ROM - P56

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL380 G6 (P62) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL380 G6 System ROM - P62

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
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Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

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Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL380 G7 (P67) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL380 G7 System ROM - P67

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

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Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

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Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL380p Gen8 (P70) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL380p Gen8 System ROM - P70

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL385 G2/DL385 G5 (A09) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL385 G2/G5 System ROM - A09

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

07/11/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL385 G5p/DL385 G6 (A22) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL385 G5p/G6 System ROM - A22

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

02/09/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the in PCI Slot number, as reported under the operating system, would not be reported correctly when a three slot PCI-E riser is installed in the platform.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the in PCI Slot number, as reported under the operating system, would not be reported correctly when a three slot PCI-E riser is installed in the platform.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL385 G7 (A18) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL385 G7 System ROM - A18

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

08/15/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant DL385p Gen8 (A28) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL385p Gen8 System ROM - A28

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

06/09/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL560 Gen8 (P77) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P77

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/15/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL580 G5 (P61) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL580 G5 System ROM - P61

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade

process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL580 G7 (P65) Servers

Version: 2013.10.01 (B) **(Critical)**

Important Note!

Important Notes:

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

The actual BIOS Firmware contained within ver. 2013.10.01(B) did not change as compared to ver. 2013.10.01. If using BIOS Firmware ver 2013.10.01, it is not necessary to update to ver. 2013.10.01(B).

Deliverable Name:

HP ProLiant DL580 G7 System ROM - P65

Release Date:

10/01/2013

Last Recommended or Critical Revision:

10/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Fixes

Important Notes:

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

The actual BIOS Firmware contained within ver. 2013.10.01(B) did not change as compared to ver. 2013.10.01. If using BIOS Firmware ver 2013.10.01, it is not necessary to update to ver. 2013.10.01(B).

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL580 Gen8 (P79) Servers

Version: 1.00_01-14-2014 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P79

Release Version:

1.00_01-14-2014

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements:

This is the initial version of the firmware.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant DL585 G2/DL585 G5/DL585 G6 (A07) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL585 G2/G5/G6 System ROM - A07

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

04/30/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in

Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL585 G7 (A16) Servers

Version: 2013.06.04 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL585 G7 System ROM

Release Date:

06/04/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

12/17/2012

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot with DIMM LEDs illuminated or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot with DIMM LEDs illuminated or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Enhancements

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant DL785 G5/DL785 G6 (A15) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL785 G5/G6 System ROM - A15

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/04/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant DL980 G7 (P66) Servers

Version: 2013.12.31 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL980 G7 System ROM - P66

Release Date:

12/31/2013

Last Recommended or Critical Revision:

12/31/2013

Previous Revision:

07/29/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the DDDC (Double Device Data Correction) aware POST (Power On Self Test) feature, which will improve the system memory's RAS (Reliability, Availability and Serviceability).

Problems Fixed:

Addressed an issue where the system may delay to POST or fail to boot when the TPM (Trusted Platform Module) is enabled, this issue would typically be seen on every warm reboot. TPM does not work in an Operation System after a system boot.

Addressed an extremely rare issue where the system might stop responding and reboot unexpectedly during an Operating System boot or run time, and reports a lot of Uncorrectable Machine Check Event in the IML (Integrated Management Log). This error would typically be seen with a lot of following IML information: Uncorrectable Machine Check Exception (Board 0, Processor 2, APIC ID 0x00000040, Bank 0x0000000E, Status 0xF6000000'00000972, Address 0x00000023'7B6E25C0, Misc 0x00000000'00000000). Customers who experience this event need to update to this version of the System ROM before

contacting HP Support.

Updated the embedded PXE Firmware to gPXE Version 4.0.582. This firmware addresses an issue where the system might stop responding during the deployment of VMware Vcenter 5.0 via PXE.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the system may delay to POST or fail to boot when the TPM (Trusted Platform Module) is enabled, this issue would typically be seen on every warm reboot. TPM does not work in an Operation System after a system boot.

Addressed an extremely rare issue where the system might stop responding and reboot unexpectedly during an Operating System boot or run time, and reports a lot of Uncorrectable Machine Check Event in the IML (Integrated Management Log). This error would typically be seen with a lot of following IML information: Uncorrectable Machine Check Exception (Board 0, Processor 2, APIC ID 0x00000040, Bank 0x0000000E, Status 0xF6000000'00000972, Address 0x00000023'7B6E25C0, Misc 0x00000000'00000000). Customers who experience this event need to update to this version of the System ROM before contacting HP Support.

Updated the embedded PXE Firmware to gPXE Version 4.0.582. This firmware addresses an issue where the system might stop responding during the deployment of VMware Vcenter 5.0 via PXE.

Known Issues:

None

Enhancements

Added support for the DDDC (Double Device Data Correction) aware POST (Power On Self Test) feature, which will improve the system memory's RAS (Reliability, Availability and Serviceability).

Online ROM Flash Component for Linux - HP ProLiant MicroServer Gen8 (J06) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant MicroServer Gen8 System ROM - J06

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML110 G7/DL120 G7 (J01) Servers

Version: 2013.07.01 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML110 G7 and DL120 G7 System ROM - J01

Release Date:

07/01/2013

Last Recommended or Critical Revision:

07/01/2013

Previous Revision:

12/04/2012

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be

affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML310 G5/DL320 G5p (W05) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320 G5p/ML310 G5 System ROM - W05

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

07/11/2009

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit

mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3200-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, and Intel Core 2 Duo Desktop E4000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3200-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, and Intel Core 2 Duo Desktop E4000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML310 G5p (W08) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310 G5p System ROM - W08

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

07/12/2009

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, Intel Core 2 Duo Desktop E6000-series, Intel Core 2 Duo E8000-series, and Intel Core 2 Quad Q9000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, Intel Core 2 Duo Desktop E6000-series, Intel Core 2 Duo E8000-series, and Intel Core 2 Quad Q9000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML310e Gen8 (J04) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310e Gen8 System ROM - J04

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML310e Gen8 v2 (P78) Servers

Version: 2013.11.08 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310e Gen8 v2 System ROM - P78

Release Date:

11/08/2013

Last Recommended or Critical Revision:

09/01/2013

Previous Revision:

09/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect

the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML350 G5 (D21) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML350 G5 System ROM - D21

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade

process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant ML350 G6 (D22) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML350 G6 System ROM - D22

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor

microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML350e Gen8/ML350e Gen8 v2 (J02) Servers

Version: 2013.12.22 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350e Gen8/ML350e Gen8 v2 System ROM - J02

Release Date:

12/22/2013

Last Recommended or Critical Revision:

12/22/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML350p Gen8 (P72) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350p Gen8 System ROM - P72

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant ML370 G5 (P57) Server

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML370 G5 System ROM - P57

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Linux - HP ProLiant ML370 G6/DL370 G6 (P63) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML370 G6/DL370 G6 System ROM - P63

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant SL210t Gen8 (P83) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL210t Gen8 System ROM - P83

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant SL230s/SL250s/SL270s Gen8 (P75) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL230s/250s/270s Gen8 System ROM - P75

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant SL335s G7 (A24) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL335s G7 System ROM - A24

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

09/01/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to

the 09/01/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 09/01/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Linux - HP ProLiant SL390s G7 (P69) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant SL390s G7 System ROM - P69

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with

Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant SL4540 Gen8 (P74) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL4540 Gen8 System ROM - P74

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Linux - HP ProLiant SL4545 G7 (A31) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL4545 G7 System ROM - A31

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

06/05/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL420c Gen8 (I30) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL420c Gen8 System ROM - I30

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL460c G7 (I27) Servers

Version: 2013.07.02 (B) **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c G7 System ROM - I27

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c0283837

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Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL460c/WS460c Gen8 (I31) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL460c/WS460c Gen8 System ROM - I31

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured

with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL465c G7 (A19) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL465c G7 System ROM - A19

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

08/15/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for VMware ESXi - HP ProLiant BL465c Gen8 (A26) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL465c Gen8 System ROM - A26

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

06/09/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL490c G7 (I28) Servers

Version: 2013.07.02 (B) **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System

ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL490c G7 System ROM - I28

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors.

This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a

result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL660c Gen8 (I32) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL660c Gen8 System ROM - I32

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/15/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update

to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL680c G7/BL620c G7 (I25) Servers

Version: 2013.07.01 (B) **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL620c/BL680c G7 System ROM - I25

Release Date:

07/01/2013

Last Recommended or Critical Revision:

07/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to

experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant BL685c G7 (A20) Servers

Version: 2013.06.04 (B) **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL685c G7 System ROM

Release Date:

06/04/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

12/17/2012

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Added support for Single Root I/O Virtualization (SR-IOV). SR-IOV can provide performance benefits in

virtualized environments if the Operating System/hypervisor and installed I/O card support SR-IOV. This functionality is enabled via a ROM-Based Setup Utility (RBSU) Advanced System ROM Option. It is disabled by default. When enabled, the System ROM will configure devices that support SR-IOV for use under a supported Operating System. Please consult the proper Operating System and Network Adapter documentation for a list of supported configurations.

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Enhancements

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Added support for Single Root I/O Virtualization (SR-IOV). SR-IOV can provide performance benefits in virtualized environments if the Operating System/hypervisor and installed I/O card support SR-IOV. This functionality is enabled via a ROM-Based Setup Utility (RBSU) Advanced System ROM Option. It is disabled by default. When enabled, the System ROM will configure devices that support SR-IOV for use under a supported Operating System. Please consult the proper Operating System and Network Adapter documentation for a list of supported configurations.

Online ROM Flash Component for VMware ESXi - HP ProLiant DL160 Gen8 (J03) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL160 Gen8 System ROM - J03

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL320e Gen8 (J05) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320e Gen8 System ROM - J05

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives.

Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL320e Gen8 v2 (P80) Servers

Version: 2013.11.08 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320e Gen8 v2 System ROM - P80

Release Date:

11/08/2013

Last Recommended or Critical Revision:

09/01/2013

Previous Revision:

09/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL360 G7 (P68) Servers

Version: 2013.07.02 (B) **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL360 G7 System ROM - P68

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This

revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL360e Gen8/DL380e Gen8 (P73) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360e/DL380e Gen8 System ROM - P73

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL360p Gen8/DL360p Gen8 SE (P71) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360p Gen8/DL360p Gen8 SE System ROM - P71

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL380 G7 (P67) Servers

Version: 2013.07.02 (B) **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL380 G7 System ROM - P67

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c0283837

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Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL380p Gen8 (P70) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL380p Gen8 System ROM - P70

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured

with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL385 G7 (A18) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL385 G7 System ROM - A18

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

08/15/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-

English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for VMware ESXi - HP ProLiant DL385p Gen8 (A28) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL385p Gen8 System ROM - A28

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

06/09/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL560 Gen8 (P77) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P77

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/15/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL580 G7 (P65) Servers

Version: 2013.10.01 (B) **(Critical)**

Important Note!

Important Notes:

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

The actual BIOS Firmware contained within ver. 2013.10.01(B) did not change as compared to ver. 2013.10.01. If using BIOS Firmware ver 2013.10.01, it is not necessary to update to ver. 2013.10.01(B).

Deliverable Name:

HP ProLiant DL580 G7 System ROM - P65

Release Date:

10/01/2013

Last Recommended or Critical Revision:

10/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Fixes

Important Notes:

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

The actual BIOS Firmware contained within ver. 2013.10.01(B) did not change as compared to ver. 2013.10.01. If using BIOS Firmware ver 2013.10.01, it is not necessary to update to ver. 2013.10.01(B).

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant DL585 G7 (A16) Servers

Version: 2013.06.04 (B) **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL585 G7 System ROM

Release Date:

06/04/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

12/17/2012

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot with DIMM LEDs illuminated or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot with DIMM LEDs illuminated or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Enhancements

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for VMware ESXi - HP ProLiant DL980 G7 (P66) Servers

Version: 2013.12.31 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL980 G7 System ROM - P66

Release Date:

12/31/2013

Last Recommended or Critical Revision:

12/31/2013

Previous Revision:

07/29/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the DDDC (Double Device Data Correction) aware POST (Power On Self Test) feature, which will improve the system memory's RAS (Reliability, Availability and Serviceability).

Problems Fixed:

Addressed an issue where the system may delay to POST or fail to boot when the TPM (Trusted Platform Module) is enabled, this issue would typically be seen on every warm reboot. TPM does not work in an Operation System after a system boot.

Addressed an extremely rare issue where the system might stop responding and reboot unexpectedly during an Operating System boot or run time, and reports a lot of Uncorrectable Machine Check Event in the IML (Integrated Management Log). This error would typically be seen with a lot of following IML information: Uncorrectable Machine Check Exception (Board 0, Processor 2, APIC ID 0x00000040, Bank 0x0000000E, Status 0xF6000000'00000972, Address 0x00000023'7B6E25C0, Misc 0x00000000'00000000). Customers who experience this event need to update to this version of the System ROM before

contacting HP Support.

Updated the embedded PXE Firmware to gPXE Version 4.0.582. This firmware addresses an issue where the system might stop responding during the deployment of VMware Vcenter 5.0 via PXE.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the system may delay to POST or fail to boot when the TPM (Trusted Platform Module) is enabled, this issue would typically be seen on every warm reboot. TPM does not work in an Operation System after a system boot.

Addressed an extremely rare issue where the system might stop responding and reboot unexpectedly during an Operating System boot or run time, and reports a lot of Uncorrectable Machine Check Event in the IML (Integrated Management Log). This error would typically be seen with a lot of following IML information: Uncorrectable Machine Check Exception (Board 0, Processor 2, APIC ID 0x00000040, Bank 0x0000000E, Status 0xF6000000'00000972, Address 0x00000023'7B6E25C0, Misc 0x00000000'00000000). Customers who experience this event need to update to this version of the System ROM before contacting HP Support.

Updated the embedded PXE Firmware to gPXE Version 4.0.582. This firmware addresses an issue where the system might stop responding during the deployment of VMware Vcenter 5.0 via PXE.

Known Issues:

None

Enhancements

Added support for the DDDC (Double Device Data Correction) aware POST (Power On Self Test) feature, which will improve the system memory's RAS (Reliability, Availability and Serviceability).

Online ROM Flash Component for VMware ESXi - HP ProLiant MicroServer Gen8 (J06) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant MicroServer Gen8 System ROM - J06

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant ML310e Gen8 (J04) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310e Gen8 System ROM - J04

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times

of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant ML310e Gen8 v2 (P78) Servers

Version: 2013.11.08 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310e Gen8 v2 System ROM - P78

Release Date:

11/08/2013

Last Recommended or Critical Revision:

09/01/2013

Previous Revision:

09/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant ML350e Gen8/ML350e Gen8 v2 (J02) Servers

Version: 2013.12.22 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350e Gen8/ML350e Gen8 v2 System ROM - J02

Release Date:

12/22/2013

Last Recommended or Critical Revision:

12/22/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly

recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant ML350p Gen8 (P72) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350p Gen8 System ROM - P72

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly

recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant SL210t Gen8 (P83) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL210t Gen8 System ROM - P83

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly

recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant SL230s/SL250s/SL270s Gen8 (P75) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL230s/250s/270s Gen8 System ROM - P75

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without

notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant SL4540 Gen8 (P74) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL4540 Gen8 System ROM - P74

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without

notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for VMware ESXi - HP ProLiant SL4545 G7 (A31) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL4545 G7 System ROM - A31

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

06/05/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for VMware ESXi- HP ProLiant DL580 Gen8 (P79) Servers

Version: 1.00_01-14-2014 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P79

Release Version:

1.00_01-14-2014

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements:

This is the initial version of the firmware.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL260c G5 (I20) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL260c G5 System ROM - I20

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

04/26/2010

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and

could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL280c G6 (I22) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL280c G6 System ROM - I22

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon

Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this

issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL2x220c G5 (I19) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL2x220c G5 System ROM - I19

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

04/26/2010

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit

mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 5100-series, Intel Xeon 5200-series, Intel Xeon 5300-series, and Intel Xeon 5400-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL2x220c G6 (I26) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL2x220c G6 System ROM - I26

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not

unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL2x220c G7 (I29) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL2x220c G7 System ROM - I29

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL420c Gen8 (I30) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL420c Gen8 System ROM - I30

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel

Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL460c (I15) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c System ROM - I15

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the

following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating

to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant BL460c G5 (I23) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c G5 System ROM - I23

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the

following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating

to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant BL460c G6/WS460c G6 (I24) Servers

Version: 2013.10.01 **(Optional)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL460c G6 and WS460c G6 System ROM - I24

Release Date:

10/01/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

07/02/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the system may experience a Blue Screen when booting Microsoft Windows 2003 with the 07/02/2013 revision of the System ROM. This issue only occurs with the 07/02/2013

revision of the System ROM and does not affect any previous revisions.

Addressed an issue where Wake On LAN would not function properly with certain Networking devices.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the system may experience a Blue Screen when booting Microsoft Windows 2003 with the 07/02/2013 revision of the System ROM. This issue only occurs with the 07/02/2013 revision of the System ROM and does not affect any previous revisions.

Addressed an issue where Wake On LAN would not function properly with certain Networking devices.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL460c G7 (I27) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c0283837

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Deliverable Name:

HP ProLiant BL460c G7 System ROM - I27

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a

result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL460c/WS460c Gen8 (I31) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL460c/WS460c Gen8 System ROM - I31

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL465c G1/BL465c G5/BL465c G6 (A13) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL465c G1/G5/G6 System ROM - A13

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/08/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following
link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant BL465c G7 (A19) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL465c G7 System ROM - A19

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

08/15/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP

Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant BL465c Gen8 (A26) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL465c Gen8 System ROM - A26

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

06/09/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times

of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL480c (I14) Server

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL480c G1 System ROM - I14

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c0283837

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Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the

following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant BL490c G6 (I21) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL490 G6 System ROM - I21

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be

affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This

revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL490c G7 (I28) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL490c G7 System ROM - I28

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/03/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory

C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL495c G5/BL495c G6 (A14) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in

Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL495c G5/G6 System ROM - A14

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/09/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant BL660c Gen8 (I32) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL660c Gen8 System ROM - I32

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/15/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured

with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL680c G5 (I17) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL680c G5 System ROM - I17

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the

following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant BL680c G7/BL620c G7 (I25) Servers

Version: 2013.07.01 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL620c/BL680c G7 System ROM - I25

Release Date:

07/01/2013

Last Recommended or Critical Revision:

07/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM

upgrade is considered a critical fix.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant BL685c G1/BL685c G5 (A08) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL685c G1/G5 System ROM - A08

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/14/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant BL685c G6 (A17) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant BL685c G6 System ROM - A17

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/09/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may not be able to install an operating system to an iSCSI-based storage solution when using the local DVD drive.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Added latest product names for display in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant BL685c G7 (A20) Servers

Version: 2013.06.04 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant BL685c G7 System ROM

Release Date:

06/04/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

12/17/2012

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Added support for Single Root I/O Virtualization (SR-IOV). SR-IOV can provide performance benefits in virtualized environments if the Operating System/hypervisor and installed I/O card support SR-IOV. This functionality is enabled via a ROM-Based Setup Utility (RBSU) Advanced System ROM Option. It is disabled by default. When enabled, the System ROM will configure devices that support SR-IOV for use under a supported Operating System. Please consult the proper Operating System and Network Adapter documentation for a list of supported configurations.

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Enhancements

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Added support for Single Root I/O Virtualization (SR-IOV). SR-IOV can provide performance benefits in virtualized environments if the Operating System/hypervisor and installed I/O card support SR-IOV. This functionality is enabled via a ROM-Based Setup Utility (RBSU) Advanced System ROM Option. It is disabled by default. When enabled, the System ROM will configure devices that support SR-IOV for use under a supported Operating System. Please consult the proper Operating System and Network Adapter documentation for a list of supported configurations.

Online ROM Flash Component for Windows - HP ProLiant DL160 Gen8 (J03) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL160 Gen8 System ROM - J03

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without

notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL320 G5/DL320s (W04) Servers

Version: 2008.06.10 **(Optional)**

Enhancements

Added support for Generation 2 (3.0 Gb/s) SATA Hard Drives. This revision of the System ROM is required for proper operation of the embedded SATA solution when a Generation 2 (3.0 Gb/s) SATA hard drive is installed in the server (DL320 G5 only).

Online ROM Flash Component for Windows - HP ProLiant DL320 G6/ML330 G6 (W07) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML330 G6 and DL320 G6 System ROM - W07

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon

Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this

issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL320e Gen8 (J05) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320e Gen8 System ROM - J05

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL320e Gen8 v2 (P80) Servers

Version: 2013.11.08 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320e Gen8 v2 System ROM - P80

Release Date:

11/08/2013

Last Recommended or Critical Revision:

09/01/2013

Previous Revision:

09/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL360 G5 (P58) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c0283837

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Deliverable Name:

HP ProLiant DL360 G5 System ROM - P58

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL360 G6 (P64) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory

C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL360 G6 System ROM - P64

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network

disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL360 G7 (P68) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL360 G7 System ROM - P68

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor

microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel

Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL360e Gen8/DL380e Gen8 (P73) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360e/DL380e Gen8 System ROM - P73

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL360p Gen8/DL360p Gen8 SE (P71) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL360p Gen8/DL360p Gen8 SE System ROM - P71

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL365 G1/DL365 G5 (A10) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL365 G1/G5 System ROM - A10

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

07/17/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL380 G5 (P56) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL380 G5 System ROM - P56

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL380 G6 (P62) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL380 G6 System ROM - P62

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

05/05/2011

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL380 G7 (P67) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL380 G7 System ROM - P67

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon

Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this

issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL380p Gen8 (P70) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL380p Gen8 System ROM - P70

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured

with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL385 G2/DL385 G5 (A09) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL385 G2/G5 System ROM - A09

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

07/11/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on

the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL385 G5p/DL385 G6 (A22) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL385 G5p/G6 System ROM - A22

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

02/09/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the in PCI Slot number, as reported under the operating system, would not be reported correctly when a three slot PCI-E riser is installed in the platform.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the in PCI Slot number, as reported under the operating system, would not be reported correctly when a three slot PCI-E riser is installed in the platform.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL385 G7 (A18) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL385 G7 System ROM - A18

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

08/15/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved an issue where the system may halt during boot when the HPC Optimization Option is enabled and the Power Profile mode is set to Maximum Performance or Custom. The halt may occur when the Power Profile is set to Custom with the Minimum Processor Idle Power State set to No C-states, and the HP Power Regulator is set to either HP Dynamic Power Savings Mode, HP Static Low Power Mode, or HP

Static High Performance Mode.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 8/15/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant DL385p Gen8 (A28) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL385p Gen8 System ROM - A28

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

06/09/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For

these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL560 Gen8 (P77) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P77

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/15/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-4600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-4600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-4600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL580 G5 (P61) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL580 G5 System ROM - P61

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the system may hang when trying to apply custom settings using the ROM Based Setup Utility (RBSU) User Defined Defaults Option.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL580 G7 (P65) Servers

Version: 2013.10.01 (B) **(Critical)**

Important Note!

Important Notes:

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

The actual BIOS Firmware contained within ver. 2013.10.01(B) did not change as compared to ver. 2013.10.01. If using BIOS Firmware ver 2013.10.01, it is not necessary to update to ver. 2013.10.01(B).

Deliverable Name:

HP ProLiant DL580 G7 System ROM - P65

Release Date:

10/01/2013

Last Recommended or Critical Revision:

10/01/2013

Previous Revision:

04/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Fixes

Important Notes:

IMPORTANT: The 07/01/2013 System ROM has an issue that can result in reduced performance and it has been removed from the HP Support Site. All HP ProLiant DL580 G7 servers should update to the 10/01/2013 System ROM instead. The 10/01/2013 System ROM revision addresses the performance issue. The performance issue was unique to the 07/01/2013 System ROM revision for the DL580 G7. It does not affect any other ProLiant servers or any other HP ProLiant DL580 G7 System ROM revisions.

The actual BIOS Firmware contained within ver. 2013.10.01(B) did not change as compared to ver. 2013.10.01. If using BIOS Firmware ver 2013.10.01, it is not necessary to update to ver. 2013.10.01(B).

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue with the 07/01/2013 revision of the System ROM that could result in decreased performance. Due to an issue with the thermal solution included in that revision of the System ROM, the processor may be "throttled" to a reduced frequency when not necessary. This issue does NOT affect other revisions of the System ROM.

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue where the Intelligent Platform Management Interface (IPMI) based power reporting would not function properly and report an incorrect wattage from the installed Power Supplies.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL580 Gen8 (P79) Servers

Version: 1.00_01-14-2014 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL560 Gen8 System ROM - P79

Release Version:

1.00_01-14-2014

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements:

This is the initial version of the firmware.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant DL585 G2/DL585 G5/DL585 G6 (A07) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL585 G2/G5/G6 System ROM - A07

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

04/30/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Added latest product names of optional expansion cards for display in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL585 G7 (A16) Servers

Version: 2013.06.04 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL585 G7 System ROM

Release Date:

06/04/2013

Last Recommended or Critical Revision:

12/17/2012

Previous Revision:

12/17/2012

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot with DIMM LEDs illuminated or boot with less than the expected amount of memory available to the operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a rare issue that could result in DIMMs not initializing properly when using RDIMMs or LRDIMMs (UDIMMs are not affected). When this issue occurs, the server may stop responding during system boot with DIMM LEDs illuminated or boot with less than the expected amount of memory available to the

operating system. If this issue occurs with previous revisions of the System ROM, the System ROM should be updated to this revision or later before replacing DIMMs.

Known Issues:

None

Enhancements

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant DL785 G5/DL785 G6 (A15) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant DL785 G5/G6 System ROM - A15

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

12/04/2009

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and

decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue where the System ROM would not populate the System Enclosure or Chassis (type 3) SMBIOS record with text entered by the user in the Server Asset Tag Text Line in the ROM-Based Setup Utility (RBSU).

Resolved an issue where the user may be unable to select and use the '57600' and '115200' options in the "BIOS Serial Console Baud Rate" menu in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant DL980 G7 (P66) Servers

Version: 2013.12.31 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL980 G7 System ROM - P66

Release Date:

12/31/2013

Last Recommended or Critical Revision:

12/31/2013

Previous Revision:

07/29/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added support for the DDDC (Double Device Data Correction) aware POST (Power On Self Test) feature, which will improve the system memory's RAS (Reliability, Availability and Serviceability).

Problems Fixed:

Addressed an issue where the system may delay to POST or fail to boot when the TPM (Trusted Platform Module) is enabled, this issue would typically be seen on every warm reboot. TPM does not work in an

Operation System after a system boot.

Addressed an extremely rare issue where the system might stop responding and reboot unexpectedly during an Operating System boot or run time, and reports a lot of Uncorrectable Machine Check Event in the IML (Integrated Management Log). This error would typically be seen with a lot of following IML information: Uncorrectable Machine Check Exception (Board 0, Processor 2, APIC ID 0x00000040, Bank 0x0000000E, Status 0xF6000000'00000972, Address 0x00000023'7B6E25C0, Misc 0x00000000'00000000). Customers who experience this event need to update to this version of the System ROM before contacting HP Support.

Updated the embedded PXE Firmware to gPXE Version 4.0.582. This firmware addresses an issue where the system might stop responding during the deployment of VMware Vcenter 5.0 via PXE.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the system may delay to POST or fail to boot when the TPM (Trusted Platform Module) is enabled, this issue would typically be seen on every warm reboot. TPM does not work in an Operation System after a system boot.

Addressed an extremely rare issue where the system might stop responding and reboot unexpectedly during an Operating System boot or run time, and reports a lot of Uncorrectable Machine Check Event in the IML (Integrated Management Log). This error would typically be seen with a lot of following IML information: Uncorrectable Machine Check Exception (Board 0, Processor 2, APIC ID 0x00000040, Bank 0x0000000E, Status 0xF6000000'00000972, Address 0x00000023'7B6E25C0, Misc 0x00000000'00000000). Customers who experience this event need to update to this version of the System ROM before contacting HP Support.

Updated the embedded PXE Firmware to gPXE Version 4.0.582. This firmware addresses an issue where the system might stop responding during the deployment of VMware Vcenter 5.0 via PXE.

Known Issues:

None

Enhancements

Added support for the DDDC (Double Device Data Correction) aware POST (Power On Self Test) feature, which will improve the system memory's RAS (Reliability, Availability and Serviceability).

Online ROM Flash Component for Windows - HP ProLiant MicroServer Gen8 (J06) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant MicroServer Gen8 System ROM - J06

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML110 G7/DL120 G7 (J01) Servers

Version: 2013.07.01 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML110 G7 and DL120 G7 System ROM - J01

Release Date:

07/01/2013

Last Recommended or Critical Revision:

07/01/2013

Previous Revision:

12/04/2012

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML310 G5/DL320 G5p (W05) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant DL320 G5p/ML310 G5 System ROM - W05

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

07/11/2009

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3200-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, and Intel Core 2 Duo Desktop E4000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3200-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, and Intel Core 2 Duo Desktop E4000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with

the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML310 G5p (W08) Servers

Version: 2010.10.25 **(Critical)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310 G5p System ROM - W08

Release Date:

10/25/2010

Last Recommended or Critical Revision:

10/25/2010

Previous Revision:

07/12/2009

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, Intel Core 2 Duo Desktop E6000-series, Intel Core 2 Duo E8000-

series, and Intel Core 2 Quad Q9000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved a processor issue where an unlikely and complex sequence of conditions operating in 64-bit mode could result in an application-level error, blue screen, kernel panic, or other unpredictable system behavior. This issue affects platforms utilizing Intel Xeon 3100-series, Intel Xeon 3300-series, Intel Pentium Dual-Core Desktop E2000-series, Intel Core 2 Duo Desktop E6000-series, Intel Core 2 Duo E8000-series, and Intel Core 2 Quad Q9000-series processors. This issue is not unique to HP ProLiant servers and could impact any system using affected processors. This revision of the System ROM contains an updated version of Intel's microcode for affected processors that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix. HP strongly recommends immediate update to firmware revisions with required critical fixes. Note: This processor issue has resulted in the following error being logged to the Integrated Management Log on servers configured with the HP ProLiant Health Management Agents when configured in a Microsoft Virtual Server environment with large numbers of Virtual Machines (VM) simultaneously subjected to a heavy I/O workload (and may occur in other operating system environments): "An Unrecoverable System Error has occurred (Error code 0x0000002D, 0x00000000)".

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML310e Gen8 (J04) Servers

Version: 2013.11.09 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310e Gen8 System ROM - J04

Release Date:

11/09/2013

Last Recommended or Critical Revision:

08/24/2013

Previous Revision:

08/24/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML310e Gen8 v2 (P78) Servers

Version: 2013.11.08 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML310e Gen8 v2 System ROM - P78

Release Date:

11/08/2013

Last Recommended or Critical Revision:

09/01/2013

Previous Revision:

09/01/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added additional options to the ROM Based Setup Utility (RBSU) Power-On Delay Option for delay times

of 15, 30, 40 and 60 seconds (in addition to the previous options of No Delay and Random Delay). For these new selections to function, the system must be using Integrated Lights-Out (iLO) Firmware version 1.20 or later. If the system is configured to one of the new options without having iLO Firmware version 1.20 or later, the Power-On Delay Option will function as if the No Delay option were chosen.

Enhanced the System ROM's detection of valid boot devices such as USB Drive Keys or Hard Drives. Previously, the System ROM may have attempted to boot certain bootable media with invalid boot records resulting in a Non-System Disk error. In some cases, the System ROM will now be able to detect the invalid boot record and skip attempting to boot the device. This allows the System ROM to attempt to boot the next device in the boot order.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML350 G5 (D21) Servers

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML350 G5 System ROM - D21

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore

configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant ML350 G6 (D22) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML350 G6 System ROM - D22

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML350e Gen8/ML350e Gen8 v2 (J02) Servers

Version: 2013.12.22 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350e Gen8/ML350e Gen8 v2 System ROM - J02

Release Date:

12/22/2013

Last Recommended or Critical Revision:

12/22/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured

with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML350p Gen8 (P72) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant ML350p Gen8 System ROM - P72

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured

with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant ML370 G5 (P57) Server

Version: 2011.05.02 **(Critical)**

Important Note!

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:

http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML370 G5 System ROM - P57

Release Date:

05/02/2011

Last Recommended or Critical Revision:

05/02/2011

Previous Revision:

10/25/2010

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Fixes

Important Notes:

As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Resolved a very rare issue where the system may either hang during system boot or boot with configuration options set incorrectly when non-volatile storage becomes corrupt. This is normally seen as the system hanging during system boot without anything displayed to video. Once the system gets into this state, the maintenance jumper can be utilized to recover operation of the system and restore configuration defaults. This revision of the System ROM will restore configuration defaults when non-volatile storage becomes corrupt.

Known Issues:

None

Enhancements

Enhanced the System ROM flash update process to improve the reliability of System ROM updates and decrease the probability of unintended corruption of the flash part. Note: As enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Online ROM Flash Component for Windows - HP ProLiant ML370 G6/DL370 G6 (P63) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory

C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant ML370 G6/DL370 G6 System ROM - P63

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network

disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant SL210t Gen8 (P83) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL210t Gen8 System ROM - P83

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel

Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant SL230s/SL250s/SL270s Gen8 (P75) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL230s/250s/270s Gen8 System ROM - P75

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/14/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2600 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly

recommends that all servers utilizing Intel E5-2600 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2600 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant SL335s G7 (A24) Servers

Version: 2012.12.08 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL335s G7 System ROM - A24

Release Date:

12/08/2012

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

09/01/2012

Firmware Dependencies:

None

Enhancements/New Features:

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to

this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 09/01/2012 system ROM.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Resolved an issue that could result in a server reset or the inability to boot. Servers should be updated to this revision of the system ROM to minimize the potential for a system reset or the inability to boot.

Resolved an issue where industry standard tools, operating systems, and HP utilities may report less Level 3 (L3) cache than expected.

Resolved a rare issue where the system and IML may indicate an uncorrectable reset when upgrading to the 09/01/2012 system ROM.

Known Issues:

None

Enhancements

Optimized the memory settings to improve the reliability of the memory system.

Added the latest product names of optional expansion cards and updated language translations (for non-English modes) in the ROM-Based Setup Utility (RBSU).

Online ROM Flash Component for Windows - HP ProLiant SL390s G7 (P69) Servers

Version: 2013.07.02 **(Critical)**

Important Note!

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link:
http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Deliverable Name:

HP ProLiant SL390s G7 System ROM - P69

Release Date:

07/02/2013

Last Recommended or Critical Revision:

07/02/2013

Previous Revision:

12/02/2012

Firmware Dependencies:

None

Enhancements/New Features:

None.

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon

Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Fixes

Important Notes:

Enhancing the flash upgrade process requires modifications to both the System ROM and the flash update utility, the System ROM revision cannot be downgraded with the flash components available on the HP Support site after updating to this revision of the System ROM. A customer can downgrade the System ROM by creating a new flash component with the older System ROM revision as indicated in Advisory C02838375 available at the following link: http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c02838375

Firmware Dependencies:

None

Problems Fixed:

Addressed a processor issue under which a rare and complex sequence of internal processor microarchitecture events that occur in specific operating environments could cause a server system to experience unexpected page faults, general protection faults, or machine check exceptions or other unpredictable system behavior. While all processors supported by this server have this issue, to be affected by this issue the server must be operating in a virtualized environment, have Intel Hyperthreading enabled, have a hypervisor that enables Intel VT FlexPriority and Extended Page Tables, and have a guest OS utilizing 32-bit PAE Paging Mode. This issue is not unique to HP ProLiant servers and could impact any system utilizing affected processors operating with the conditions listed above. This revision of the System ROM contains an updated version of Intel's microcode that addresses this issue. Due to the potential severity of the issue addressed in this revision of the System ROM, this System ROM upgrade is considered a critical fix.

Addressed an issue with the Intel Xeon Processor X5675, Intel Xeon Processor X5690, and Intel Xeon Processor X5687 where a rare and complex combination of data and environmental conditions may result in some instructions not executing properly causing unpredictable system behavior. This issue is not unique to HP ProLiant servers and could impact any system using the affected processors listed above. This revision of the System ROM contains and updated version of Intel's microcode that addresses this

issue. This System ROM upgrade is considered a critical fix for customers utilizing the affected processors. This issue does not impact any processors that are not listed above.

Addressed an issue where the platform may experience networking issues under heavy workloads with Operating Systems, such as Linux RedHat 6.2, and IRQ Balancing enabled in the Operating System. As a result of this issue, software may lose interrupts, receive spurious interrupts or cause a network disconnect.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant SL4540 Gen8 (P74) Servers

Version: 2013.12.20 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL4540 Gen8 System ROM - P74

Release Date:

12/20/2013

Last Recommended or Critical Revision:

12/20/2013

Previous Revision:

11/12/2013

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured

with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where Memory Address or Command Parity errors may occur on servers configured with Intel Xeon E5-2400 series v2 processors and memory configurations where the memory speed is running at 1600 MHz or 1866 MHz. These errors may have resulted in the server resetting without notification of the error or the system resetting and displaying a "283-Memory Address/Command Parity Error Detected Error" and logging the event to the Integrated Management Log (IML). HP strongly recommends that all servers utilizing Intel E5-2400 v2 processors with impacted memory speeds update to this revision of the System ROM or later. This issue does NOT affect servers configured with the Intel Xeon E5-2400 series processor.

Known Issues:

None

Online ROM Flash Component for Windows - HP ProLiant SL4545 G7 (A31) Servers

Version: 2013.11.02 **(Optional)**

Important Note!

Important Notes:

None

Deliverable Name:

HP ProLiant SL4545 G7 System ROM - A31

Release Date:

11/02/2013

Last Recommended or Critical Revision:

12/08/2012

Previous Revision:

06/05/2013

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

Added the latest product names of optional expansion cards in the ROM-Based Setup Utility (RBSU).

Known Issues:

None

Driver - Chipset

Top

HP ProLiant PCI-express Power Management Update for Windows

Version: 1.3.0.0 (D) **(Optional)**

Enhancements

Enhanced component-level logging has been implemented in the Smart Component installer. The generated log file will be located on the target system in the %SystemRoot%\cpqsystem\log directory under the name CPQSETUP.LOG.

Driver - Lights-Out Management

Top

HP iLO High-Performance Mouse for Linux

Version: 1.2.1-1 **(Optional)**

Prerequisites

In order for the HP iLO High-Performance Mouse to install and work properly, your server must have the following:

- embedded iLO2 or later
- Xfree86 or xorg-x11 install
- 2.6 Kernel or later

Fixes

- Fixed issue where the remote console mouse does not function properly on RedHat Enterprise Linux 4 Update 8 with iLO3 based servers. Previously released version (1.2.0) that claimed iLO3 support did not function as expected under RHEL4 update 8 on iLO3 based servers.

Enhancements

Added support for HP ProLiant Gen8 and Gen8 v2 servers.

HP ProLiant Channel Interface Device Driver for iLO for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 8.5.0-1.rhel5 **(Optional)**

Important Note!

The hp-ilo features are now included in the Red Hat Enterprise Linux 5 Update 3 and later. Therefore you don't need to install hp-ilo if you are running Red Hat Enterprise Linux 5 Update 3 and later.

Enhancements

- Added support for newer distribution kernels.

HP ProLiant Channel Interface Device Driver for iLO for Red Hat Enterprise Linux 5 (x86)

Version: 8.5.0-1.rhel5 **(Optional)**

Important Note!

The hp-ilo features are now included in the Red Hat Enterprise Linux 5 Update 3 and later. Therefore you don't need to install hp-ilo if you are running Red Hat Enterprise Linux 5 Update 3 and later.

Enhancements

- Added support for newer distribution kernels.

HP ProLiant Integrated Lights-Out Management Interface Driver for Windows Server 2003/2008

Version: 1.16.0.0 **(Optional)**

Fixes

Fixed a problem related to the Insight Management Agents and WBEM Providers re-establishing communications with iLO after iLO is rebooted.

HP ProLiant Integrated Lights-Out Management Interface Driver for Windows Server 2003/2008 x64 Editions

Version: 1.16.0.0 (B) **(Optional)**

Fixes

Disable installation under Windows Server 2012, which was incorrectly enabled in version 1.16.0.0. For Windows Server 2012 support, use the HP ProLiant Integrated Lights-Out Management Interface Driver for Windows Server 2012, version 1.17.0.0 or later, instead. This will prevent HP Smart Update Manager from showing that both drivers are available for installation under Windows Server 2012 on HP ProLiant G6 servers.

HP ProLiant Integrated Lights-Out Management Interface Driver for Windows Server 2012

Version: 1.18.0.0 **(Optional)**

Enhancements

Add support for Microsoft Windows Server 2012 R2 on selected HP ProLiant G6 servers.

Driver - Network

Top

HP Broadcom 1/10 GbE Multifunction Drivers for Red Hat Enterprise Linux 5 i686

Version: 7.8.83-2 **(Optional)**

Enhancements

These drivers now support HP Virtual Connect, version 4.10.

These drivers now provide support for different Generic Routing Encapsulation (GRE) RSS modes.

Supported Devices and Features

These drivers support the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter
- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 1/10 GbE Multifunction Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 7.8.83-2 **(Optional)**

Enhancements

These drivers now support HP Virtual Connect, version 4.10.

These drivers now provide support for different Generic Routing Encapsulation (GRE) RSS modes.

Supported Devices and Features

These drivers support the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter
- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 1/10 GbE Multifunction Drivers for Red Hat Enterprise Linux 6 i686

Version: 7.8.83-2 **(Optional)**

Enhancements

These drivers now support HP Virtual Connect, version 4.10.

These drivers now provide support for different Generic Routing Encapsulation (GRE) RSS modes.

Supported Devices and Features

These drivers support the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter
- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter

- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 1/10 GbE Multifunction Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 7.8.83-2 **(Optional)**

Enhancements

These drivers now support HP Virtual Connect, version 4.10.

These drivers now provide support for different Generic Routing Encapsulation (GRE) RSS modes.

Supported Devices and Features

These drivers support the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter
- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 1/10 GbE Multifunction Drivers for SUSE Linux Enterprise Server 11 i586

Version: 7.8.83-2 **(Optional)**

Fixes

This bnx2x driver addresses a system panic that occurs during a reboot after a SUSE Linux Enterprise Server 11 SP3 BFS installation.

Enhancements

These drivers now support HP Virtual Connect, version 4.10.

These drivers now provide support for different Generic Routing Encapsulation (GRE) RSS modes.

Supported Devices and Features

These drivers support the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter
- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 1/10 GbE Multifunction Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 7.8.83-2 **(Optional)**

Fixes

This bnx2x driver addresses a system panic that occurs during a reboot after a SUSE Linux Enterprise Server 11 SP3 BFS installation.

Enhancements

These drivers now support HP Virtual Connect, version 4.10.

These drivers now provide support for different Generic Routing Encapsulation (GRE) RSS modes.

Supported Devices and Features

These drivers support the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter
- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 10GbE Multifunction Drivers for Windows Server 2008

Version: 7.8.81.0 **(Optional)**

Fixes

The NDIS driver in this component addresses an issue where the receiving server experiences a “micro burst” of data that floods the NIC receive buffer and causes the receiving server to drop data.

Supported Devices and Features

This driver supports the following HP Broadcom 10GbE Multifunction network adapters:

- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Flex-10 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Flex-10 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter

- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 10GbE Multifunction Drivers for Windows Server x64 Editions

Version: 7.8.81.0 **(Optional)**

Fixes

The NDIS driver in this component addresses an issue where the receiving server experiences a "micro burst" of data that floods the NIC receive buffer and causes the receiving server to drop data.

Supported Devices and Features

This driver supports the following HP Broadcom 10GbE Multifunction network adapters:

- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifunction BL-c Adapter
- HP Flex-10 10Gb 2-port 530FLB Adapter
- HP Ethernet 10Gb 2-port 530FLR-SFP+ Adapter
- HP Flex-10 10Gb 2-port 530M Adapter
- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom 1Gb Driver for Windows Server 2008

Version: 16.4.0.1 **(Optional)**

Fixes

This driver corrects an issue that could result in halted traffic when configuring jumbo frame size to 9000.

This driver corrects an issue that could result in a Windows Stop Error (BSOD) when a large number of ports are repeatedly disabled.

Supported Devices and Features

This driver supports the following HP Broadcom network adapters:

- HP NC105i Integrated PCI Express Gigabit Server Adapter
- HP NC107i Integrated PCI Express Gigabit Server Adapter
- HP NC325m PCIe Quad Port Adapter
- HP NC326i Integrated Dual Port PCI Express Gigabit Server Adapter
- HP NC326m PCIe Dual Port Adapter
- HP Ethernet 1Gb 2-port 330i Adapter

- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Broadcom 1Gb Driver for Windows Server x64 Editions

Version: 16.4.0.1 **(Optional)**

Fixes

This driver corrects an issue that could result in halted traffic when configuring jumbo frame size to 9000.

This driver corrects an issue that could result in a Windows Stop Error (BSOD) when a large number of ports are repeatedly disabled.

Supported Devices and Features

This driver supports the following HP Broadcom network adapters:

- HP NC105i Integrated PCI Express Gigabit Server Adapter
- HP NC107i Integrated PCI Express Gigabit Server Adapter
- HP NC325m PCIe Quad Port Adapter
- HP NC326i Integrated Dual Port PCI Express Gigabit Server Adapter
- HP NC326m PCIe Dual Port Adapter
- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Broadcom 1Gb Multifunction Drivers for Windows Server 2008

Version: 7.8.50.0 **(Optional)**

Fixes

This driver corrects an issue that could result in halted traffic when configuring jumbo frame size to 9000.

This driver corrects an issue that could result in a Windows Stop Error (BSOD) when a large number of ports are repeatedly disabled.

Supported Devices and Features

This driver supports the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter

- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter

HP Broadcom 1Gb Multifunction Drivers for Windows Server x64 Editions

Version: 7.8.50.0 (B) **(Optional)**

Fixes

This driver corrects an issue that could result in halted traffic when configuring jumbo frame size to 9000.

This driver corrects an issue that could result in a Windows Stop Error (BSOD) when a large number of ports are repeatedly disabled.

Supported Devices and Features

This driver supports the following network adapters:

- HP BladeSystem Dual NC370i Multifunction Gigabit Server Adapter
- HP NC371i Integrated PCI-X Multifunction Gigabit Server Adapter
- HP NC373F PCI Express Multifunction Gigabit Server Adapter
- HP NC373T PCI Express Multifunction Gigabit Server Adapter
- HP NC373i Integrated Multifunction Gigabit Server Adapter
- HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter
- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 10 i686

Version: 0.7.8.1e-1 **(Optional)**

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter

- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 10 x86_64

Version: 0.7.8.1e-1 **(Optional)**

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 9 i686

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter

- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 5 Update 9 x86_64

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 4 i686

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter

- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 4 x86_64

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 5 i686

Version: 0.7.8.1e-1 **(Optional)**

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter

- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for Red Hat Enterprise Linux 6 Update 5 x86_64

Version: 0.7.8.1e-1 **(Optional)**

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP2 i586

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP2 x86_64

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP3 i586

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom Linux iSCSI Offload IO Daemon for SUSE Linux Enterprise Server 11 SP3 x86_64

Version: 0.7.8.1e-1 **(Optional)**

Fixes

This software now correctly decodes the iface_subnet_mask for IPv6.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC382i Integrated Dual Port Multifunction Gigabit Server Adapter
- HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
- HP NC382T PCI Express Dual Port Gigabit Server Adapter
- HP NC532i Dual Port 10GbE Multifunction BL-c Adapter
- HP NC532m Dual Port 10GbE Multifuntion BL-c Adapter
- HP FlexFabric 10Gb 2-port 534FLB Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter

HP Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 5 i686

Version: 3.134f-2 **(Optional)**

Fixes

This driver addresses an issue where Frame Check Sequence (FCS) Receive (Rx) errors occur randomly when a system is connected to a Dell PowerConnect switch.

This driver addresses some link status issues that occur when the networking cable is not plugged in.

This driver addresses an issue that results in the lspci command produces unknown messages in its output.

This driver addresses an issue which results in a system in S1 sleep mode failing to wake up when it receives a Magic Packet.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC105i PCIe Gigabit Server Adapter
- HP NC107i PCIe Quad Port Gigabit Server Adapter
- HP NC320m PCI Express Gigabit Server Adapter
- HP NC325m Quad Port PCIe Gigabit Server Adapter
- HP NC326i PCIe Dual Port Gigabit Server Adapter
- HP NC326m Dual Port PCIe Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 330i Adapter

- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 3.134f-2 **(Optional)**

Fixes

This driver addresses an issue where Frame Check Sequence (FCS) Receive (Rx) errors occur randomly when a system is connected to a Dell PowerConnect switch.

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- HP NC325m Quad Port PCIe Gigabit Server Adapter
- HP NC326i PCIe Dual Port Gigabit Server Adapter
- HP NC326m Dual Port PCIe Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 6 i686

Version: 3.134f-2 **(Optional)**

Fixes

This driver addresses an issue where Frame Check Sequence (FCS) Receive (Rx) errors occur randomly when a system is connected to a Dell PowerConnect switch.

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- HP NC325m Quad Port PCIe Gigabit Server Adapter
- HP NC326i PCIe Dual Port Gigabit Server Adapter
- HP NC326m Dual Port PCIe Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Broadcom tg3 Ethernet Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 3.134f-2 **(Optional)**

Fixes

This driver addresses an issue where Frame Check Sequence (FCS) Receive (Rx) errors occur randomly when a system is connected to a Dell PowerConnect switch.

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- HP NC325m Quad Port PCIe Gigabit Server Adapter

- HP NC326i PCIe Dual Port Gigabit Server Adapter
- HP NC326m Dual Port PCIe Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 11 i586

Version: 3.134f-2 **(Optional)**

Fixes

This driver addresses an issue where Frame Check Sequence (FCS) Receive (Rx) errors occur randomly when a system is connected to a Dell PowerConnect switch.

This driver addresses some link status issues that occur when the networking cable is not plugged in.

This driver addresses an issue that results in the lspci command produces unknown messages in its output.

This driver addresses an issue which results in a system in S1 sleep mode failing to wake up when it receives a Magic Packet.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC105i PCIe Gigabit Server Adapter
- HP NC107i PCIe Quad Port Gigabit Server Adapter
- HP NC320m PCI Express Gigabit Server Adapter
- HP NC325m Quad Port PCIe Gigabit Server Adapter
- HP NC326i PCIe Dual Port Gigabit Server Adapter
- HP NC326m Dual Port PCIe Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Broadcom tg3 Ethernet Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 3.134f-2 **(Optional)**

Fixes

This driver addresses an issue where Frame Check Sequence (FCS) Receive (Rx) errors occur randomly when a system is connected to a Dell PowerConnect switch.

This driver addresses some link status issues that occur when the networking cable is not plugged in.

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- HP NC325m Quad Port PCIe Gigabit Server Adapter
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- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
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- HP Ethernet 1Gb 4-port 331i-SPI Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

HP Emulex 10GbE Driver for Windows Server 2008

Version: 10.0.430.1109 **(Optional)**

Fixes

This driver addresses an issue that prevents enumeration of Virtual Functions in an HP Virtual Connect version 4.10 environment.

Enhancements

The maximum supported transmit queue depth is now 2048.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter

- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE Driver for Windows Server 2008 R2

Version: 10.0.430.1109 **(Optional)**

Fixes

This driver addresses an issue that prevents enumeration of Virtual Functions in an HP Virtual Connect version 4.10 environment.

Enhancements

The maximum supported transmit queue depth is now 2048.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE Driver for Windows Server 2008 x64 Editions

Version: 10.0.430.1109 **(Optional)**

Fixes

This driver addresses an issue that prevents enumeration of Virtual Functions in an HP Virtual Connect version 4.10 environment.

Enhancements

The maximum supported transmit queue depth is now 2048.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE Driver for Windows Server 2012

Version: 10.0.430.1109 **(Optional)**

Fixes

This driver addresses an issue that prevents enumeration of Virtual Functions connections in an HP Virtual Connect version 4.10 environment.

This driver addresses an issue that results in an incorrect maximum number of Virtual Functions being displayed in certain situations.

Enhancements

The maximum supported transmit queue depth is now 2048.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter

- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE Driver for Windows Server 2012 R2

Version: 10.0.430.1109 **(Optional)**

Fixes

This driver addresses an issue that prevents enumeration of Virtual Functions connections in an HP Virtual Connect version 4.10 environment.

Enhancements

The maximum supported transmit queue depth is now 2048.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE Drivers for Red Hat Enterprise Linux 5 i686

Version: 4.9.311.1-1 **(Optional)**

Fixes

This driver addresses an issue where the NIC adapter fails to initialize after a suspend-resume cycle.

This driver addresses an issue where the virtual function interfaces assigned to the virtual machine lose the MAC address after the virtual machine is rebooted.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
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- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 4.9.311.1-1 **(Optional)**

Fixes

This driver addresses an issue where the NIC adapter fails to initialize after a suspend-resume cycle.

This driver addresses an issue where the virtual function interfaces assigned to the virtual machine lose the MAC address after the virtual machine is rebooted.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE Drivers for Red Hat Enterprise Linux 6 i686

Version: 4.9.311.1-1 **(Optional)**

Fixes

This driver addresses an issue where the NIC adapter fails to initialize after a suspend-resume cycle.

This driver addresses an issue where the virtual function interfaces assigned to the virtual machine lose the MAC address after the virtual machine is rebooted.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 4.9.311.1-1 **(Optional)**

Fixes

This driver addresses an issue where the NIC adapter fails to initialize after a suspend-resume cycle.

This driver addresses an issue where the virtual function interfaces assigned to the virtual machine lose the MAC address after the virtual machine is rebooted.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
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- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
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- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
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- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter

- HP CN1100E Converged Network Adapter

HP Emulex 10GbE Drivers for SUSE Linux Enterprise Server 11 i586

Version: 4.9.311.1-1 **(Optional)**

Fixes

This driver addresses an issue where the NIC adapter fails to initialize after a suspend-resume cycle.

This driver addresses an issue where the virtual function interfaces assigned to the virtual machine lose the MAC address after the virtual machine is rebooted.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
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- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 4.9.311.1-1 **(Optional)**

Fixes

This driver addresses an issue where the NIC adapter fails to initialize after a suspend-resume cycle.

This driver addresses an issue where the virtual function interfaces assigned to the virtual machine lose the MAC address after the virtual machine is rebooted.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC550SFP Dual Port 10GbE Server Adapter
- HP NC550m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter

- HP NC552m 10Gb 2-port Flex-10 Server Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE iSCSI Driver for Windows Server 2008

Version: 4.9.160.0 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver, versioned 10.0.430.1109.

Supported Devices and Features

This driver supports the following HP Emulex iSCSI adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE iSCSI Driver for Windows Server 2008 R2

Version: 4.9.160.0 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver, versioned 10.0.430.1109.

Supported Devices and Features

This driver supports the following HP iSCSI adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter

- HP CN1000E Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE iSCSI Driver for Windows Server 2008 x64 Editions

Version: 4.9.160.0 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver, versioned 10.0.430.1109.

Supported Devices and Features

This driver supports the following HP iSCSI adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE iSCSI Driver for Windows Server 2012

Version: 4.9.160.0 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver, versioned 10.0.430.1109.

Supported Devices and Features

This driver supports the following HP iSCSI adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter

- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE iSCSI Driver for Windows Server 2012 R2

Version: 4.9.160.0 **(Optional)**

Enhancements

Initial release.

Supported Devices and Features

This driver supports the following HP iSCSI adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP CN1000E Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Emulex 10GbE iSCSI Drivers for Red Hat Enterprise Linux 5 i686

Version: 4.9.196.1007-1 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver versioned 4.9.311.1-1.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE iSCSI Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 4.9.196.1007-1 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver versioned 4.9.311.1-1.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE iSCSI Drivers for Red Hat Enterprise Linux 6 i686

Version: 4.9.311.4-1 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver versioned 4.9.311.1-1.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE iSCSI Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 4.9.311.4-1 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver versioned 4.9.311.1-1.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE iSCSI Drivers for SUSE Linux Enterprise Server 11 i586

Version: 4.9.311.4-1 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver versioned 4.9.311.1-1.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Emulex 10GbE iSCSI Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 4.9.311.4-1 **(Optional)**

Enhancements

This driver has been updated by Emulex for use with the corresponding Emulex 10Gb Ethernet Driver versioned 4.9.311.1-1.

Supported Devices and Features

This driver supports the following HP network adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
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- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Converged Network Adapter

HP Intel e1000e Drivers for Red Hat Enterprise Linux 5 i686

Version: 2.5.7-4 **(Optional)**

Fixes

This driver addresses a system panic that occurs with Receive (Rx) traffic while the interface is going down.

This driver addresses several Runtime Power Management (RPM) issues.

This driver addresses an issue where an Asynchronous Transfer Mode (ATM) connection drops after driver unload if large Maximum Transmission Unit (MTU) is configured.

This driver addresses low throughput and high Cyclic Redundancy Check (CRC) error count issues when using 4k jumbo MTU.

This driver addresses some Virtual Local Area Network (VLAN) support issues for kernels versioned 3.10 and above.

Enhancements

This driver now allows the l218 chipset Ultra-Low Power (ULP) mode to be enabled in sleep modes 3 and 4 (S3/4). It also allows ULP mode to be enabled in sleep mode 0 (S0) when Runtime Power Management (RPM) is enabled.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP Intel e1000e Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 2.5.7-4 **(Optional)**

Fixes

This driver addresses a system panic that occurs with Receive (Rx) traffic while the interface is going down.

This driver addresses several Runtime Power Management (RPM) issues.

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These drivers support the following network adapters:

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- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP Intel e1000e Drivers for Red Hat Enterprise Linux 6 i686

Version: 2.5.7-4 **(Optional)**

Fixes

This driver addresses a system panic that occurs with Receive (Rx) traffic while the interface is going down.

This driver addresses several Runtime Power Management (RPM) issues.

This driver addresses an issue where an Asynchronous Transfer Mode (ATM) connection drops after driver unload if large Maximum Transmission Unit (MTU) is configured.

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Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP Intel e1000e Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 2.5.7-4 **(Optional)**

Fixes

This driver addresses a system panic that occurs with Receive (Rx) traffic while the interface is going down.

This driver addresses several Runtime Power Management (RPM) issues.

This driver addresses an issue where an Asynchronous Transfer Mode (ATM) connection drops after driver unload if large Maximum Transmission Unit (MTU) is configured.

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This driver addresses some Virtual Local Area Network (VLAN) support issues for kernels versioned 3.10 and above.

Enhancements

This driver now allows the I218 chipset Ultra-Low Power (ULP) mode to be enabled in sleep modes 3 and 4 (S3/4). It also allows ULP mode to be enabled in sleep mode 0 (S0) when Runtime Power Management (RPM) is enabled.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP Intel e1000e Drivers for SUSE Linux Enterprise Server 11 i586

Version: 2.5.7-4 **(Optional)**

Fixes

This driver addresses a system panic that occurs with Receive (Rx) traffic while the interface is going down.

This driver addresses several Runtime Power Management (RPM) issues.

This driver addresses an issue where an Asynchronous Transfer Mode (ATM) connection drops after driver unload if large Maximum Transmission Unit (MTU) is configured.

This driver addresses low throughput and high Cyclic Redundancy Check (CRC) error count issues when using 4k jumbo MTU.

This driver addresses some Virtual Local Area Network (VLAN) support issues for kernels versioned 3.10 and above.

Enhancements

This driver now allows the I218 chipset Ultra-Low Power (ULP) mode to be enabled in sleep modes 3 and 4 (S3/4). It also allows ULP mode to be enabled in sleep mode 0 (S0) when Runtime Power Management (RPM) is enabled.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP Intel e1000e Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 2.5.7-4 **(Optional)**

Fixes

This driver addresses a system panic that occurs with Receive (Rx) traffic while the interface is going

down.

This driver addresses several Runtime Power Management (RPM) issues.

This driver addresses an issue where an Asynchronous Transfer Mode (ATM) connection drops after driver unload if large Maximum Transmission Unit (MTU) is configured.

This driver addresses low throughput and high Cyclic Redundancy Check (CRC) error count issues when using 4k jumbo MTU.

This driver addresses some Virtual Local Area Network (VLAN) support issues for kernels versioned 3.10 and above.

Enhancements

This driver now allows the l218 chipset Ultra-Low Power (ULP) mode to be enabled in sleep modes 3 and 4 (S3/4). It also allows ULP mode to be enabled in sleep mode 0 (S0) when Runtime Power Management (RPM) is enabled.

Supported Devices and Features

These drivers support the following network adapters:

- HP NC112i 1-port Ethernet Server Adapter
- HP NC112T PCI Express Gigabit Server Adapter
- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP Intel E1R Driver for Windows Server 2008

Version: 12.7.29.0 (C) **(Optional)**

Fixes

This driver addresses an issue where a “link down” message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This driver now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

This driver supports the following HP Intel E1R network adapters:

- HP NC365T PCI Express Quad Port Gigabit Server Adapter

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- Hp Ethernet 1Gb 2-port 367i Adapter

HP Intel E1R Driver for Windows Server 2008 R2

Version: 12.7.28.0 (C) **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This driver now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

This driver supports the following HP Intel E1R network adapters:

- HP NC365T PCI Express Quad Port Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel E1R Driver for Windows Server 2008 x64 Editions

Version: 12.7.29.0 (C) **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This driver now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

This driver supports the following HP Intel E1R network adapters:

- HP NC365T PCI Express Quad Port Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 2-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- Hp Ethernet 1Gb 2-port 367i Adapter

HP Intel E1R Driver for Windows Server 2012

Version: 12.7.28.0 (C) **(Optional)**

Fixes

This driver addresses an issue where a “link down” message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This driver now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

This driver supports the following HP Intel E1R network adapters:

- HP NC365T PCI Express Quad Port Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter

- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel E1R Driver for Windows Server 2012 R2

Version: 12.8.26.0 (B) **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This driver now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

This driver supports the following HP Intel E1R network adapters:

- HP NC365T PCI Express Quad Port Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- Hp Ethernet 1Gb 2-port 367i Adapter

HP Intel igb Drivers for Red Hat Enterprise Linux 5 i686

Version: 5.0.7-4 **(Optional)**

Fixes

These drivers address transmit (Tx) hangs on kernels with Byte Queue Limits (BQL) enabled and Interrupt Throttle Rate (ITR) of less than 100K per second.

Enhancements

These drivers now provide receive packet statistics for additional packet types.

These drivers now support the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter

- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel igb Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 5.0.7-4 **(Optional)**

Fixes

These drivers address transmit (Tx) hangs on kernels with Byte Queue Limits (BQL) enabled and Interrupt Throttle Rate (ITR) of less than 100K per second.

Enhancements

These drivers now provide receive packet statistics for additional packet types.

These drivers now support the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter

- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel igb Drivers for Red Hat Enterprise Linux 6 i686

Version: 5.0.7-4 **(Optional)**

Fixes

These drivers address transmit (Tx) hangs on kernels with Byte Queue Limits (BQL) enabled and Interrupt Throttle Rate (ITR) of less than 100K per second.

Enhancements

These drivers now provide receive packet statistics for additional packet types.

These drivers now support the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel igb Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 5.0.7-4 **(Optional)**

Fixes

These drivers address transmit (Tx) hangs on kernels with Byte Queue Limits (BQL) enabled and Interrupt Throttle Rate (ITR) of less than 100K per second.

Enhancements

These drivers now provide receive packet statistics for additional packet types.

These drivers now support the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel igb Drivers for SUSE Linux Enterprise Server 11 i586

Version: 5.0.7-4 **(Optional)**

Fixes

These drivers address transmit (Tx) hangs on kernels with Byte Queue Limits (BQL) enabled and Interrupt Throttle Rate (ITR) of less than 100K per second.

Enhancements

These drivers now provide receive packet statistics for additional packet types.

These drivers now support the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter

- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel igb Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 5.0.7-4 **(Optional)**

Fixes

These drivers address transmit (Tx) hangs on kernels with Byte Queue Limits (BQL) enabled and Interrupt Throttle Rate (ITR) of less than 100K per second.

Enhancements

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These drivers now support the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

Supported Devices and Features

These drivers support the following HP Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP NC365T 4-port Ethernet Server Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter

HP Intel ixgbe Drivers for Red Hat Enterprise Linux 5 i686

Version: 3.19.0.46-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 3.19.0.46-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for Red Hat Enterprise Linux 6 i686

Version: 3.19.0.46-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter

- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 3.19.0.46-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for SUSE Linux Enterprise Server 11 i586

Version: 3.19.0.46-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbe Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 3.19.0.46-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbevf Drivers for Red Hat Enterprise Linux 5 i686

Version: 2.12.0.38-4 **(Optional)**

Fixes

These drivers no longer hang when the “rmmod” command is executed on a RHEL 5.9 guest operating system.

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

These drivers now provide support for Busy Poll Sockets.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbevf Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 2.12.0.38-4 **(Optional)**

Fixes

These drivers no longer hang when the “rmmod” command is executed on a RHEL 5.9 guest operating system.

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

These drivers now provide support for Busy Poll Sockets.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbevf Drivers for Red Hat Enterprise Linux 6 i686

Version: 2.12.0.38-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

These drivers now provide support for Busy Poll Sockets.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbevf Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 2.12.0.38-4 **(Optional)**

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

These drivers now provide support for Busy Poll Sockets.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter

- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbevf Drivers for SUSE Linux Enterprise Server 11 i586

Version: 2.12.0.38-4 **(Optional)**

Fixes

These drivers address an issue where a guest virtual machine on SLES11 SP2 is unable to change the hardware offload settings for the VF interface.

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

These drivers now provide support for Busy Poll Sockets.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixgbevf Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 2.12.0.38-4 **(Optional)**

Fixes

These drivers address an issue where a guest virtual machine on SLES11 SP2 is unable to change the hardware offload settings for the VF interface.

Enhancements

These drivers now support the HP Ethernet 10Gb 2-port 562i Adapter.

These drivers now provide support for Busy Poll Sockets.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixn/ixt Drivers for Windows Server 2008

Version: 3.5.22.0 (D) **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This component now supports the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

This component supports the following HP Intel ixn network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixn/ixt Drivers for Windows Server 2008 R2

Version: 3.7.24.0 **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This component now supports the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

This component supports the following HP Intel ixn network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter

- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixn/ixt Drivers for Windows Server 2008 x64 Editions

Version: 3.5.22.0 (D) **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This component now supports the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

This component supports the following HP Intel ixn network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixn/ixt Drivers for Windows Server 2012

Version: 3.7.24.0 **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This component now supports the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

This component supports the following HP Intel ixn network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel ixn/ixt Drivers for Windows Server 2012 R2

Version: 3.7.24.0 **(Optional)**

Fixes

This driver addresses an issue where a "link down" message is recorded in the Windows system event log during every system boot regardless of the actual state of the link.

Enhancements

This component now supports the HP Ethernet 10Gb 2-port 562i Adapter.

Supported Devices and Features

This component supports the following HP Intel ixn network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter

This component supports the following HP Intel ixt network adapters:

- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Mellanox 10GbE Driver for Windows Server 2008

Version: 2.2.5.9196 **(Optional)**

Fixes

This driver corrects an issue where a system running in a Virtual Connection Environment automatically went into recovery mode after the driver was installed and the system rebooted.

Supported Devices and Features

This driver supports the following HP Mellanox 10GbE network adapters:

- HP 10GbE Dual Port Mezzanine Network Interface Card
- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC543i 1-port 4x QDR IB/Flex-10 10Gb Adapter
- HP NC543i 2-port 4x QDR IB/10Gb Adapter

HP Mellanox 10GbE Driver for Windows Server 2008 R2

Version: 2.2.5.9196 **(Optional)**

Fixes

This driver corrects an issue where a system running in a Virtual Connection Environment automatically went into recovery mode after the driver was installed and the system rebooted.

Supported Devices and Features

This driver supports the following HP Mellanox 10GbE network adapters:

- HP 10GbE Dual Port Mezzanine Network Interface Card
- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC543i 1-port 4x QDR IB/Flex-10 10Gb Adapter
- HP NC543i 2-port 4x QDR IB/10Gb Adapter

HP Mellanox 10GbE Driver for Windows Server 2008 x64 Editions

Version: 2.2.5.9196 **(Optional)**

Fixes

This driver corrects an issue where a system running in a Virtual Connection Environment automatically went into recovery mode after the driver was installed and the system rebooted.

Supported Devices and Features

This driver supports the following HP Mellanox 10GbE network adapters:

- HP 10GbE Dual Port Mezzanine Network Interface Card
- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC543i 1-port 4x QDR IB/Flex-10 10Gb Adapter
- HP NC543i 2-port 4x QDR IB/10Gb Adapter

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 5 Update 10 i686)

Version: 1.5.10 **(Recommended)**

Fixes

Fixes in Version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Version 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in Version 1.5.10 from 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 Update 10 (x86) supported by this binary rpm are:
2.6.18-371.el5 - (x86) and future update kernels.
2.6.18-371.el5xen - (x86) and future update kernels.
2.6.18-371.el5PAE - (x86) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 5 Update 10 x86_64)

Version: 1.5.10 **(Recommended)**

Fixes

Fixes in Version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI

- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Version 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in Version 1.5.10 from 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 Update 10 (x86_64) supported by this binary rpm are:
2.6.18-371.el5 - (x86_64) and future update kernels.
2.6.18-371.el5xen - (x86_64) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 5 Update 9 i686)

Version: 1.5.10 **(Recommended)**

Fixes

Fixes in Version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Version 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in Version 1.5.10 from 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 Update 9 (x86) supported by this binary rpm are:
2.6.18-348.el5 - (x86) and future update kernels.
2.6.18-348.el5xen - (x86) and future update kernels.
2.6.18-348.el5PAE - (x86) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 5 Update 9 x86_64)

Version: 1.5.10 **(Recommended)**

Fixes

Fixes in Version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Version 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in Version 1.5.10 from 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.

- Improved latency by optimizing RX repost mechanism.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 Update 9 (x86_64) supported by this binary rpm are:
2.6.18-348.el5 - (x86_64) and future update kernels.
2.6.18-348.el5xen - (x86_64) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 6 Update 4 x86)

Version: 2.0 **(Recommended)**

Fixes

Fixes in version 2.0-3.0.0:

- Fixed TX timeout issues.
- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.0-3.0.0 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.
- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6U4 (x86) supported by this binary rpm are:
2.6.32-358.el6 - (x86) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 6 Update 4 x86_64)

Version: 2.0 **(Recommended)**

Fixes

Fixes in version 2.0-3.0.0:

- Fixed TX timeout issues.
- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.0-3.0.0 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.

- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6U4 (x86_64) supported by this binary rpm are:
2.6.32-358.el6 - (x86_64) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 6 Update 5 x86)

Version: 2.1 **(Recommended)**

Fixes

Fixes in version 2.1:

- Fixed TX timeout issues.
- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.1 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.
- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6U5 (x86) supported by this binary rpm are:
2.6.32-431.el6 - (x86) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (Red Hat Enterprise Linux 6 Update 5 x86_64)

Version: 2.1 **(Recommended)**

Fixes

Fixes in version 2.1:

- Fixed TX timeout issues.
- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.

- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.1 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.
- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6U5 (x86_64) supported by this binary rpm are:
2.6.32-431.el6 - (x86_64) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (SUSE LINUX Enterprise Server 11 SP2 AMD64/EM64T)

Version: 2.0 **(Recommended)**

Fixes

Fixes in version 2.0-3.0.0:

- Fixed TX timeout issues.
- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.0-3.0.0 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.
- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server SP2 (AMD64/EM64T) supported by this binary rpm are:
3.0.13-0.27-default - (AMD64/EM64T) and future update kernels.
3.0.13-0.27-xen - (AMD64/EM64T) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (SUSE LINUX Enterprise Server 11 SP2 x86)

Version: 2.0 **(Recommended)**

Fixes

Fixes in version 2.0-3.0.0:

- Fixed TX timeout issues.
- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI

- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.0-3.0.0 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.
- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server SP2 (x86) supported by this binary rpm are:
3.0.13-0.27-default - (x86) and future update kernels.
3.0.13-0.27-xen - (x86) and future update kernels.
3.0.13-0.27-pae - (x86) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (SUSE LINUX Enterprise Server 11 SP3 AMD64/EM64T)

Version: 2.0 **(Recommended)**

Fixes

Fixes in version 2.0-3.0.0:

- Fixed TX timeout issues.
- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.0-3.0.0 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.
- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server SP3 (AMD64/EM64T) supported by this binary rpm are:
3.0.76-0.11-default - (AMD64/EM64T) and future update kernels.
3.0.76-0.11-xen - (AMD64/EM64T) and future update kernels.

HP Mellanox EN Driver for InfiniBand adapters (SUSE LINUX Enterprise Server 11 SP3 x86)

Version: 2.0 **(Recommended)**

Fixes

Fixes in version 2.0-3.0.0:

- Fixed TX timeout issues.

- Fixed Ethtool status report for Virtual Functions.
- Fixed an issue of VLAN traffic over Virtual Machine in paravirtualized mode.
- Fixed Ethtool operation crash while interface down.

Fixes in version 1.5.10

- Driver no longer unloads after installation. Currently, the driver is reloaded after installation.
- Configuration files are no longer modified during driver installation.
- MTU size calculation now results in correct value.
- Race condition no longer exists in join/leave multicast group flow.
- Restored RX buffer pointer in case of failure.
- Fixed completely broken IPMI
- Traffic stops including ping does not pass after several hours of line rate traffic (BlueFlame race) no longer exists.
- Loss of connectivity issue for iperf long run is resolved.

Fixes in Rev 1.5.9

- Fixed bad TX completion notification request logic, could lead to TX timeout.
- Fixed PowerPC connectivity loss

Enhancements

Changes in version 2.0-3.0.0 From version 1.5.10

- Added support for SuSE Linux Enterprise Server 11 SP3.
- Added ConnectX-3 Pro support.

Changes in version 1.5.10 From version 1.5.9

- Fixes only.

Changes in Version 1.5.9 from 1.5.8.3

- Added support to kernel.org 3.5.
- Improved latency by optimizing RX repost mechanism

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server SP3 (x86) supported by this binary rpm are:
3.0.76-0.11-default - (x86) and future update kernels.
3.0.76-0.11-xen - (x86) and future update kernels.
3.0.76-0.11-pae - (x86) and future update kernels.

HP NC-Series Intel E1E Driver for Windows Server 2008

Version: 9.15.17.0 **(Optional)**

Fixes

This driver addresses an issue where checksum offload computations were performed even when checksum offload was disabled.

Supported Devices and Features

This driver supports the following HP NC-Series Intel network adapters:

- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP NC-Series Intel E1E Driver for Windows Server 2008 R2

Version: 9.15.17.0 (B) **(Optional)**

Enhancements

This driver now supports Windows Server 2012.

Supported Devices and Features

This driver supports the following HP NC-Series Intel network adapters:

- HP NC110T PCI Express Single Port Gigabit Server Adapter
- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP NC-Series Intel E1E Driver for Windows Server 2008 x64 Editions

Version: 9.15.17.0 **(Optional)**

Fixes

This driver addresses an issue where checksum offload computations were performed even when checksum offload was disabled.

Supported Devices and Features

This driver supports the following HP NC-Series Intel network adapters:

- HP NC110T PCI Express Single Port Gigabit Server Adapter

- HP NC360m Dual Port Gigabit Ethernet BL-c Adapter
- HP NC360T PCI Express Dual Port Gigabit Server Adapter
- HP NC364m Quad Port Gigabit Ethernet BL-c Adapter
- HP NC364T PCI Express Quad Port Gigabit Server Adapter

HP NC-Series Intel E1Q Driver for Windows Server 2008

Version: 12.7.29.0 (B) **(Optional)**

Fixes

This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features

This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP NC-Series Intel E1Q Driver for Windows Server 2008 R2

Version: 12.7.27.0 (B) **(Optional)**

Fixes

This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features

This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP NC-Series Intel E1Q Driver for Windows Server 2008 x64 Editions

Version: 12.7.29.0 (B) **(Optional)**

Fixes

This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features

This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP NC-Series Intel E1Q Driver for Windows Server 2012

Version: 12.7.27.0 (B) **(Optional)**

Fixes

This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features

This driver supports the following HP NC-Series Intel E1Q network adapters:

- HP NC112T PCI Express Gigabit Server Adapter
- HP NC112i 1-port Ethernet Server Adapter
- HP NC362i Integrated Dual Port Gigabit Server Adapter
- HP NC362i Integrated Dual Port BL-c Gigabit Server Adapter

HP Network Configuration Utility for Windows Server 2008

Version: 10.85.0.0 **(Optional)**

Fixes

This software addresses an issue that results in a network disconnect when NCU is opened for the first time.

This software addresses an issue where updating CISCO switch firmware prevents an 802.3ad team from forming.

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Network Configuration Utility for Windows Server 2008 R2

Version: 10.85.0.0 **(Optional)**

Fixes

This software addresses an issue that results in a network disconnect when NCU is opened for the first

time.

This software addresses an issue where updating CISCO switch firmware prevents an 802.3ad team from forming.

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Network Configuration Utility for Windows Server 2008 x64 Editions

Version: 10.85.0.0 **(Optional)**

Fixes

This software addresses an issue that results in a network disconnect when NCU is opened for the first time.

This software addresses an issue where updating CISCO switch firmware prevents an 802.3ad team from forming.

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP QLogic iSCSI Drivers for Red Hat Enterprise Linux 5 i686

Version: 5.03.01.11-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic iSCSI Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 5.03.01.11-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic iSCSI Drivers for Red Hat Enterprise Linux 6 i686

Version: 5.03.01.11-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic iSCSI Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 5.03.01.11-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic iSCSI Drivers for SUSE Linux Enterprise Server 11 i586

Version: 5.03.01.11-3 **(Optional)**

Enhancements

This package has no driver changes. Only the packaging has been updated.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic iSCSI Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 5.03.01.11-3 **(Optional)**

Enhancements

This package has no driver changes. Only the packaging has been updated.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 5 i686

Version: 4.0.593-1 **(Optional)**

Fixes

These drivers no longer hang or panic the system when being unloaded while Input/Output Memory Management Unit (IOMMU) is enabled.

Supported Devices and Features

This software supports the following HP P2 network adapters:

- HP NC512m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC510C PCIe 10 Gigabit Server Adapter
- HP NC510F PCIe 10 Gigabit Server Adapter

This software supports the following HP P3 network adapters:

- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 4.0.593-1 **(Optional)**

Fixes

These drivers no longer hang or panic the system when being unloaded while Input/Output Memory Management Unit (IOMMU) is enabled.

Supported Devices and Features

This software supports the following HP P2 network adapters:

- HP NC512m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC510C PCIe 10 Gigabit Server Adapter
- HP NC510F PCIe 10 Gigabit Server Adapter

This software supports the following HP P3 network adapters:

- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 6 i686

Version: 4.0.593-1 **(Optional)**

Fixes

These drivers no longer hang or panic the system when being unloaded while Input/Output Memory Management Unit (IOMMU) is enabled.

Supported Devices and Features

This software supports the following HP P2 network adapters:

- HP NC512m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC510C PCIe 10 Gigabit Server Adapter
- HP NC510F PCIe 10 Gigabit Server Adapter

This software supports the following HP P3 network adapters:

- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module

- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic nx_nic Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 4.0.593-1 **(Optional)**

Fixes

These drivers no longer hang or panic the system when being unloaded while Input/Output Memory Management Unit (IOMMU) is enabled.

Supported Devices and Features

This software supports the following HP P2 network adapters:

- HP NC512m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC510C PCIe 10 Gigabit Server Adapter
- HP NC510F PCIe 10 Gigabit Server Adapter

This software supports the following HP P3 network adapters:

- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic nx_nic Drivers for SUSE Linux Enterprise Server 11 i586

Version: 4.0.593-1 **(Optional)**

Fixes

These drivers now install correctly on SLES11 SP3.

These drivers no longer hang or panic the system when being unloaded while Input/Output Memory Management Unit (IOMMU) is enabled.

Supported Devices and Features

This software supports the following HP P2 network adapters:

- HP NC512m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC510C PCIe 10 Gigabit Server Adapter
- HP NC510F PCIe 10 Gigabit Server Adapter

This software supports the following HP P3 network adapters:

- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic nx_nic Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 4.0.593-1 **(Optional)**

Fixes

These drivers now install correctly on SLES11 SP3.

These drivers no longer hang or panic the system when being unloaded while Input/Output Memory Management Unit (IOMMU) is enabled.

Supported Devices and Features

This software supports the following HP P2 network adapters:

- HP NC512m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC510C PCIe 10 Gigabit Server Adapter
- HP NC510F PCIe 10 Gigabit Server Adapter

This software supports the following HP P3 network adapters:

- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic P3P iSCSI Driver for Windows Server 2008

Version: 2.1.5.38 (B) **(Optional)**

Fixes

This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features

This driver supports the following HP P3P network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP QLogic P3P iSCSI Driver for Windows Server 2008 x64 Editions

Version: 2.1.5.38 (B) **(Optional)**

Fixes

This component addresses an issue which can result in installed adapters remaining in a disabled state when they should be enabled after installation is complete.

Supported Devices and Features

This driver supports the following HP P3P network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP QLogic P3P iSCSI Driver for Windows Server 2012 and Windows Server 2012 R2

Version: 2.1.5.38 (D) **(Optional)**

Enhancements

This driver now supports Microsoft Windows Server 2012 R2.

Supported Devices and Features

This driver supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP QLogic P3P Multifunction Driver for Windows Server 2008

Version: 4.7.29.1101 **(Optional)**

Enhancements

The firmware bundled with this driver has been updated to version 4.0.593.

Supported Devices and Features

This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic P3P Multifunction Driver for Windows Server 2008 R2

Version: 4.7.29.1101 **(Optional)**

Enhancements

The firmware bundled with this driver has been updated to version 4.0.593.

Supported Devices and Features

This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic P3P Multifunction Driver for Windows Server 2008 x64 Editions

Version: 4.7.29.1101 **(Optional)**

Enhancements

The firmware bundled with this driver has been updated to version 4.0.593.

Supported Devices and Features

This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic P3P Multifunction Driver for Windows Server 2012

Version: 4.7.29.1101 **(Optional)**

Enhancements

The firmware bundled with this driver has been updated to version 4.0.593.

Supported Devices and Features

This driver supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP QLogic P3P Multifunction Driver for Windows Server 2012 R2

Version: 5.3.10.1101 **(Optional)**

Enhancements

The firmware bundled with this driver has been updated to version 4.0.593.

Supported Devices and Features

This driver supports the following network adapters:

- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter
- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 5 i686

Version: 5.0.29.5-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 5 x86_64

Version: 5.0.29.5-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 6 i686

Version: 5.0.29.5-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic qlcnic Drivers for Red Hat Enterprise Linux 6 x86_64

Version: 5.0.29.5-3 **(Optional)**

Enhancements

These drivers now support Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic qlcnic Drivers for SUSE Linux Enterprise Server 11 i586

Version: 5.0.29.5-3 **(Optional)**

Enhancements

This package has no driver changes. Only the packaging has been updated.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

HP QLogic qlcnic Drivers for SUSE Linux Enterprise Server 11 x86_64

Version: 5.0.29.5-3 **(Optional)**

Enhancements

This package has no driver changes. Only the packaging has been updated.

Supported Devices and Features

This software supports the following HP P3P network adapters:

- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter
- HP CN1000Q Dual Port Converged Network Adapter

Mellanox InfiniBand and Ethernet Driver for SuSE Linux Enterprise Server 11 SP3

Version: 2.0-3.0.0 **(Recommended)**

Important Note!

It is recommended to follow instructions from "Performance_Tuning_Guide_for_Mellanox_Network_Adapters_v1.8.pdf" , if using MLNX_EN (Ethernet driver) from this OFED version.The performance tunning guide helps you to setup the parameters that improves the perfomance of Mellanox VPI cards in Ethernet mode. "Performance_Tuning_Guide_for_Mellanox_Network_Adapters_v1.8.pdf" and "mlnx_irq_affinity" scripts are bundled with the driver.

Certain software including drivers and documents may be available from Mellanox. If you select a URL that directs you to http://www.mellanox.com/, you are then leaving HP.com. Please follow the instructions on http://www.mellanox.com/ to download Mellanox software or documentation. When downloading the Mellanox software or documentation, you may be subject to Mellanox terms and conditions, including licensing terms, if any, provided on its website or otherwise. HP is not responsible

for your use of any software or documents that you download from http://www.mellanox.com/, except that HP may provide a limited warranty for Mellanox software in accordance with the terms and conditions of your purchase of the HP product or solution.

For a list of known issues with this release, refer to Chapter 9 of "Mellanox OFED Release notes" available at: http://www.mellanox.com/related-docs/prod_software/Mellanox_OFED_Linux_Release_Notes_2_0-3_0_0.pdf

Prerequisites

Note: If the HP NC-Series Mellanox 10GbE Driver for Linux is already installed on the server, then you must uninstall the HP NC-Series Mellanox 10GbE Driver for Linux prior to installing the Mellanox OFED VPI driver.

- uname -r

  3.0.76-0.11-default

Note: Verify the kernel number matches exactly to the SuSE Linux Enterprise Server 11 SP3. If errata patches have been added, then the kernel number will have changed.

If using a modified kernel, then you need to use "mlnx_add_kernel_support.sh" from MLNX_OFED_LINUX-2.0-3.0.0-sles11sp3-x86_64.iso to build a new iso image or tarball with modified kernel support. This image has to be used for MLNX OFED installation on the modified kernel.

Usage: mlnx_add_kernel_support.sh -m|--mlnx_ofed <path to MLNX_OFED directory> [--make-iso|--make-tgz]

```
[--make-iso]              Create MLNX_OFED ISO image.
[--make-tgz]              Create MLNX_OFED tarball. (Default)
[-t|--tmpdir <local work dir>]
[--kmp]
[-v|--verbose]
```

Installation guide and user manual are provided in the docs directory of the iso file.

- tar -zxvf MLNX_OFED_LINUX-2.0-3.0.0-sles11sp3-x86_64.tar.gz
- cd MLNX_OFED_LINUX-2.0-3.0.0-sles11sp3-x86_64
- mount -o ro,loop MLNX_OFED_LINUX-2.0-3.0.0-sles11sp3-x86_64.iso /mnt
- cd /mnt/docs

Enhancements

MLNX OFED v2.0-3.0.0 contains the following changes and new features:

- Added support for SuSE Linux Enterprise Server 11 SP3
- Added support for Connect-IB adapters
- Added support for SR-IOV (Single Root I/O Virtualization)
- Added YUM installation support.
- Added support for EoIB (Only on SuSE Linux Enterprise Server 11 SP2 and Red Hat Enterprise

Linux 6 Update 2)
- Modified mlx4_core module parameters to associate configuration values with specific PCI devices identified by their bus/device/function value format
- Reusing DMA mapped buffers: major performance improvements when IOMMU is enabled
- Added Port level QoS support for mlx4_en
- Reduced memory consumption for IPoIB
- Limited the number TX and RX queues to 16 for IPoIB
- Default IPoIB mode is set to work in Datagram, except for Connect-IB adapter card which uses IPoIB with Connected mode as default.

MLNX OFED v2.0-2.0.5 contains the following changes and new features:

- SR-IOV for both Ethernet and InfiniBand (at Beta level). This feature is a ConnectX-3 HCA capability.
- RoCE over SR-IOV (at Beta level)
- eIPoIB to enable IPoIB in a Para-Virtualized environment (at Alpha level)
- HPC performance enhancement:
  - Contiguous pages - internal memory allocation improvements
  - Contiguous pages - register shared memory
  - Contiguous pages - control objects (QPs, CQs)
- Ethernet Performance Enhancements (NUMA Related and others) for 40GigE and 10GigE
- OFED_VMA integration to a single branch
- Ethernet Time Stamping (at Beta level). This feature is a ConnectX-3 HCA capability.
- Flow Steering for Ethernet and InfiniBand.(at Beta level). This feature is a ConnectX-3 HCA capability.
- Raw Eth QPs:
  - Checksum TX/RX
  - Flow Steering
- Errata Kernel upgrade support
- YUM update support
- Storage – iSER (iSCSI Extensions for RDMA) at Beta level and SRP (SCSI RDMA Protocol).
- 64bit wide counters (port xmit/recv data/packets unicast/mcast)
- VERSION query API: library and headers

Driver - Storage

Top

HP ProLiant Dynamic Smart Array RAID Controller Driver for Microsoft Windows Server 2012 and Microsoft Windows 2012 R2 x64 Editions

Version: 62.8.0.64 **(Critical)**

Fixes

- For the HP Dynamic Smart Array (B120i/B320i) controllers when running Microsoft Windows Server 2012 R2, corrected potential blue screen when using the Microsoft Windows Server 2012 62.6.2.64 (or earlier) version of hpsa2 driver.
- For systems with a FBWC and HP Dynamic Smart Array B120i/B320i controllers, fixed an issue involving crash dump and cache flush. In the case where a server failure occurs, and a crash

dump is generated, in some cases the FBWC was not flushing before the crash dump is written to the disk. Please find customer advisory at http://h20564.www2.hp.com/portal/site/hpsc/public/kb/docDisplay/?docId=c04045904

Enhancements

- Added support for Microsoft Windows Server 2012 R2.
- New enhancements for SCSI Verify commands.

HP ProLiant Dynamic Smart Array RAID Controller Driver for Windows 2008 x64 Editions

Version: 6.8.0.64 **(Critical)**

Fixes

- For systems with a FBWC and HP Dynamic Smart Array B120i/B320i controllers, fixed an issue involving crash dump and cache flush. In the case where a server failure occurs, and a crash dump is generated, in some cases the FBWC was not flushing before the crash dump is written to the disk. Please find customer advisory at http://h20564.www2.hp.com/portal/site/hpsc/public/kb/docDisplay/?docId=c04045904

Enhancements

- New enhancements for SCSI Verify commands.

HP ProLiant Dynamic Smart Array RAID Controller Driver for Windows Server 2008

Version: 6.8.0.32 **(Critical)**

Fixes

- For systems with a FBWC and HP Dynamic Smart Array B120i/B320i controllers, fixed an issue involving crash dump and cache flush. In the case where a server failure occurs, and a crash dump is generated, in some cases the FBWC was not flushing before the crash dump is written to the disk. Please find customer advisory at http://h20564.www2.hp.com/portal/site/hpsc/public/kb/docDisplay/?docId=c04045904

Enhancements

- New enhancements for SCSI Verify commands.

HP ProLiant Smart Array Embedded SATA RAID Controller Driver for Microsoft Windows Server 2012 and Microsoft Windows Server 2012 R2

Version: 6.18.4.64 (A) **(Optional)**

Enhancements

Added support for Microsoft Windows Server 2012 R2

HP ProLiant Smart Array Embedded SATA RAID Controller Driver for Windows 2003/2008 x64 Editions

Version: 6.18.0.64 (B) **(Optional)**

Important Note!

If the target controller was successfully updated to version 6.18.0.64(A) of this driver, then it is not necessary to update to version 6.18.0.64(B)

Enhancements

Support added for Microsoft Windows Small Business Server 2011 Standard and Essentials

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HP ProLiant Smart Array Embedded SATA RAID Controller Driver for Windows Server 2003/2008

Version: 6.18.0.32 (A) **(Optional)**

Important Note!

If the target controller was successfully updated to version 6.18.0.32, then it is not necessary to update to version 6.18.0.32(A)

Fixes

- Corrects an issue where HP B110i would try to resume the rebuild progress if the drive was replaced while the server was offline.
- To improve rebuild time, ensure that drive write cache is enabled during rebuild and disabled when rebuild completes.

Driver - Storage Controller

Top

HP 4/8 Internal Port SAS HBA with RAID and SCxxGe series HBA Driver for Windows Server 2008

Version: 1.28.2.1 (B) **(Optional)**

Enhancements

Added support for the HP SC08Ge SAS Host Bus Adapter

Enhanced component-level logging has been implemented in the smart component installer. The generated log file will be located on the target system in %SYSTEMROOT%\cpqsystem\log directory under the name CPQSETUP.LOG.

HP 4/8 Internal Port SAS HBA with RAID and SCxxGe series HBA Driver for Windows Server 2008 x64 Editions

Version: 1.28.2.1 (C) **(Optional)**

Enhancements

Added support for the HP SC08Ge SAS Host Bus Adapter

Enhanced component-level logging has been implemented in the Smart Component installer. The generated log file will be located on the target system in the %SystemRoot%\cpqsystem\log directory under the name CPQSETUP.LOG.

HP Dynamic Smart Array SATA RAID Controller Driver for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 1.2.8-140 **(Recommended)**

Enhancements

Added Optical drive support improvements.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (AMD64/EM64T) supported by this binary rpm are:
2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (AMD64/EM64T) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (AMD64/EM64T) and future errata kernels for update 8.
2.6.18-348.el5 - Red Hat Enterprise Linux 5 Update 9 (AMD64/EM64T) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (AMD64/EM64T) and future errata kernels for update 10.

HP Dynamic Smart Array SATA RAID Controller Driver for Red Hat Enterprise Linux 5 (x86)

Version: 1.2.8-140 **(Recommended)**

Enhancements

Added Optical drive support improvements.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (x86) supported by this binary rpm are:
2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (x86) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (x86) and future errata kernels for update 8.

2.6.18-348.el5 - Red Hat Enterprise Linux 5 Update 9 (x86) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (x86) and future errata kernels for update 10.

HP Dynamic Smart Array SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 1.2.8-140 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 5.
Added Optical drive support improvements.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(AMD64/EM64T) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(AMD64/EM64T) and future errata kernels for update 5.

HP Dynamic Smart Array SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (x86)

Version: 1.2.8-140 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 5.
Added Optical drive support improvements.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.

HP Dynamic Smart Array SATA RAID Controller Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 1.2.8-140 **(Recommended)**

Enhancements

Added Optical drive support improvements.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

HP Dynamic Smart Array SATA RAID Controller Driver for SUSE LINUX Enterprise Server 11 (x86)

Version: 1.2.8-140 **(Recommended)**

Enhancements

Added Optical drive support improvements.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) and future errata kernels for SP 3.

HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2008 x86 Editions

Version: 2.68.64.0 **(Optional)**

Enhancements

Updated for Version Control across all LSI_sas2 Windows Drivers.

HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2008 R2 Editions
Version: 2.68.64.0 **(Optional)**

Enhancements

Updated for Version Control across all LSI_sas2 Windows Drivers.

HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2008 x64 Editions

Version: 2.68.64.0 **(Optional)**

Enhancements

Updated for Version Control across all LSI_sas2 Windows Drivers.

HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2012 R2 x64 Editions

Version: 2.68.64.0 **(Optional)**

Enhancements

Initial release

HP H2xx SAS/SATA Host Bus Adapter Driver for Microsoft Windows Server 2012 x64 Editions

Version: 2.68.64.0 **(Optional)**

Enhancements

Updated for Version Control across all LSI_sas2 Windows Drivers.

HP H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 15.10.02.00-6 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (AMD64/EM64T) supported by this binary rpm are:
2.6.18-194.el5 - Red Hat Enterprise Linux 5 Update 5 (AMD64/EM64T) and future errata kernels for update 5.
2.6.18-238.el5 - Red Hat Enterprise Linux 5 Update 6 (AMD64/EM64T) and future errata kernels for update 6.
2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (AMD64/EM64T) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (AMD64/EM64T) and future errata kernels for update 8.
2.6.18-348.el5 - Red Hat Enterprise Linux 5 Update 9 (AMD64/EM64T) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (AMD64/EM64T) and future errata kernels for update 10.

HP H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 5 (x86)

Version: 15.10.02.00-6 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (x86) supported by this binary rpm are:
2.6.18-194.el5 - Red Hat Enterprise Linux 5 Update 5 (x86) and future errata kernels for update 5.
2.6.18-238.el5 - Red Hat Enterprise Linux 5 Update 6 (x86) and future errata kernels for update 6.
2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (x86) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (x86) and future errata kernels for update 8.
2.6.18-348.el5 - Red Hat Enterprise Linux 5 Update 9 (x86) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (x86) and future errata kernels for update 10.

HP H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 15.10.01.00-1 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 4.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(AMD64/EM64T) and future errata kernels for update 4.

HP H2xx SAS/SATA Host Bus Adapter Driver for Red Hat Enterprise Linux 6 (x86)

Version: 15.10.01.00-1 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 4.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.

HP H2xx SAS/SATA Host Bus Adapter Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 15.10.02.00-6 **(Recommended)**

Enhancements

Minor changes to scripts for post driver BAT run.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this driver diskette are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) plus future errata.
3.0.13-0.27.1- SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) plus future errata.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) plus future errata.

HP H2xx SAS/SATA Host Bus Adapter Driver for SUSE LINUX Enterprise Server 11 (x86)

Version: 15.10.02.00-6 **(Recommended)**

Enhancements

Minor changes to scripts for post driver BAT run.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this driver diskette are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) plus future errata.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) plus future errata.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) plus future errata.

HP ProLiant Integrated SATA Controller Driver for Microsoft Windows Server 2008 R2

Version: 1.1.10273.1 **(Recommended)**

Fixes

This driver release fixes a bugcheck 0xD1 that occurs when
the Symantec Netbackup does a shadow copy of Microsoft Window 2008 R2.

HP ProLiant Integrated SATA Controller Driver for Windows Server 2008 x64 Edition

Version: 1.1.10273.1 **(Recommended)**

Fixes

This driver release fixes a bugcheck 0xD1 that occurs when
the Symantec Netbackup does a shadow copy of Microsoft Window 2008.

HP ProLiant Integrated SATA Controller Driver for Windows Server 2008 x86 Edition

Version: 1.1.10273.1 **(Recommended)**

Fixes

This driver release fixes a bugcheck 0xD1 that occurs when
the Symantec Netbackup does a shadow copy of Microsoft Window 2008.

HP ProLiant Smart Array 5x and 6x Controller Driver for Windows Server 2003/2008 x64 Editions

Version: 6.8.0.64 (F) **(Optional)**

Enhancements

No functional changes have occurred for the driver, only enhanced component-level logging has been implemented in the smart component installer. The generated log file will be located on the target system in %SYSTEMROOT%\cpqsystem\log directory under the name CPQSETUP.LOG. If you have previously installed version 6.8.0.64(E) of this driver, then you do not need to upgrade to version 6.8.0.64(F).

HP ProLiant Smart Array 5x and 6x Controller Driver for Windows Server 2008

Version: 6.8.0.32 (C) **(Optional)**

Enhancements

No functional changes have occurred for the driver, only enhanced component-level logging has been implemented in the smart component installer. The generated log file will be located on the target system in %SYSTEMROOT%\cpqsystem\log directory under the name CPQSETUP.LOG. If you have previously installed version 6.8.0.32(B) of this driver, then you do not need to upgrade to version 6.8.0.32(C).

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 4.6.28-24 **(Recommended)**

Fixes

Minor fix to tape drive error handling code.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 3.6.28-24 **(Recommended)**

Fixes

Minor fix to tape drive error handling code.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (AMD64/EM64T) supported by this binary rpm are:
2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (AMD64/EM64T) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (AMD64/EM64T) and future errata kernels for update 8.
2.6.18-339.el5 - Red Hat Enterprise Linux 5 Update 9 (AMD64/EM64T) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (AMD64/EM64T) and future errata kernels for update 10.

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 4.6.28-24 **(Recommended)**

Fixes

Minor fix to tape drive error handling code.

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(AMD64/EM64T) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(AMD64/EM64T) and future errata kernels for update 5.

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 3.4.4-125 **(Recommended)**

Enhancements

- Added HPSSD Smart Path feature.
- Added support for HP Secure Encryption.

- Added support for HP Smart Array Px3x Controllers.
- Added support for Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this binary rpms are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1 (AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2 (AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3 (AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4 (AMD64/EM64T) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5 (AMD64/EM64T) and future errata kernels for update 5.

HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 3.4.4-125 **(Recommended)**

Enhancements

- Added HPSSD Smart Path feature.
- Added support for HP Secure Encryption.
- Added support for HP Smart Array Px3x Controllers.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

HP ProLiant Smart Array Controller (x86/AMD32) Driver for Red Hat Enterprise Linux 5 (x86)

Version: 3.6.28-24 **(Recommended)**

Fixes

Minor fix to tape drive error handling code.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (x86) supported by this binary rpm are:

2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (x86) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (x86) and future errata kernels for update 8.
2.6.18-339.el5 - Red Hat Enterprise Linux 5 Update 9 (x86) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (x86) and future errata kernels for update 10.

HP ProLiant Smart Array Controller (x86/AMD32) Driver for Red Hat Enterprise Linux 6 (x86)

Version: 4.6.28-24 **(Recommended)**

Fixes

Minor fix to tape drive error handling code.

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.

HP ProLiant Smart Array Controller (x86/AMD32) Driver for Red Hat Enterprise Linux 6 (x86)

Version: 3.4.4-125 **(Recommended)**

Enhancements

- Added HPSSD Smart Path feature.
- Added support for HP Secure Encryption.
- Added support for HP Smart Array Px3x Controllers.
- Added support for Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.

HP ProLiant Smart Array Controller (x86/AMD32) Driver for SUSE LINUX Enterprise Server 11 (x86)

Version: 3.4.4-125 **(Recommended)**

Enhancements

- Added HPSSD Smart Path feature.
- Added support for HP Secure Encryption.
- Added support for HP Smart Array Px3x Controllers.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) and future errata kernels for SP 3.

HP ProLiant Smart Array Controller (x86/AMD32) Driver for SUSE LINUX Enterprise Server 11 (x86)

Version: 4.6.28-24 **(Recommended)**

Fixes

Minor fix to tape drive error handling code.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) and future errata kernels for SP 3.

HP ProLiant Smart Array Device Manager Extension for Windows Server 2003/2008

Version: 6.6.0.32 (C) **(Optional)**

Enhancements

No functional changes have occurred for the Device Manager Extension, only enhanced component-level logging has been implemented in the smart component installer. The generated log file will be located on the target system in %SYSTEMROOT%\cpqsystem\log directory under the name CPQSETUP.LOG. If you have previously installed version 6.6.0.32(B) of this Device Manager Extension, then you do not need to upgrade to version 6.6.0.32(C).

HP ProLiant Smart Array Device Manager Extension for Windows Server 2003/2008 x64 Editions

Version: 6.6.0.64 (D) **(Optional)**

Enhancements

No functional changes have occurred for the Device Manager Extension, only enhanced component-level logging has been implemented in the smart component installer. The generated log file will be located on the target system in %SYSTEMROOT%\cpqsystem\log directory under the name CPQSETUP.LOG. If you have previously installed version 6.6.0.64(C) of this Device Manager Extension, then you do not need to upgrade to version 6.6.0.64(D).

HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2008

Version: 6.4.0.32 **(Optional)**

Enhancements

- Peformance improvments for MPIO bases solutions using MSA 2040 and P2000 storage enclosures.
- Improved performance for certain configurations using SSD SmartPath.

HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2008 x64 Edition

Version: 6.4.0.64 **(Optional)**

Enhancements

- Peformance improvments for MPIO bases solutions using MSA 2040 and P2000 storage enclosures.
- Improved performance for certain configurations using SSD SmartPath.

HP ProLiant Smart Array HPCISSS3 Controller Driver for Windows Server 2012 x64 Edition

Version: 62.4.0.64 **(Optional)**

Enhancements

- Peformance improvments for MPIO bases solutions using MSA 2040 and P2000 storage enclosures.
- Improved performance for certain configurations using SSD SmartPath.

HP ProLiant Smart Array SAS/SATA Controller Driver for Windows Server 2008

Version: 6.28.0.32 **(Optional)**

Enhancements

Minor performance enhancements

HP ProLiant Smart Array SAS/SATA Controller Driver for Windows Server 2008 x64 Edition

Version: 6.28.0.64 **(Optional)**

Enhancements

- Enables customers to make use of Microsoft HotFix which enables 64-bit command addressing described by MS KB2468345.

HP ProLiant Smart Array SAS/SATA Controller Driver for Windows Server 2012 x64 Edition

Version: 62.28.0.64 **(Critical)**

Fixes

Fixed errors occuring with 62.26.0.64 version which included a possible bluescreen or system hang when running I/O on Windows Server 2012. This issue resolves the customer advisory c03793656 described at the following link:http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?objectID=c03793656

Enhancements

Support for Windows 2012 R2

HP Smart Array B110i SATA RAID Controller Driver for Red Hat Enterprise Linux 5 (EM64T)

Version: 1.2.6-16 **(Optional)**

Enhancements

Added support for Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (AMD64/EM64T) supported by this binary rpm are:
2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (AMD64/EM64T) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (AMD64/EM64T) and future errata kernels for update 8.
2.6.18-339.el5 - Red Hat Enterprise Linux 5 Update 9 (AMD64/EM64T) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (AMD64/EM64T) and future errata kernels for update 10.

HP Smart Array B110i SATA RAID Controller Driver for Red Hat Enterprise Linux 5 (x86)

Version: 1.2.6-16 **(Optional)**

Enhancements

Added support for Red Hat Enterprise Linux 5 Update 10.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 5 (x86) supported by this binary rpm are:
2.6.18-274.el5 - Red Hat Enterprise Linux 5 Update 7 (x86) and future errata kernels for update 7.
2.6.18-308.el5 - Red Hat Enterprise Linux 5 Update 8 (x86) and future errata kernels for update 8.
2.6.18-339.el5 - Red Hat Enterprise Linux 5 Update 9 (x86) and future errata kernels for update 9.
2.6.18-371.el5 - Red Hat Enterprise Linux 5 Update 10 (x86) and future errata kernels for update 10.

HP Smart Array B110i SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 1.2.6-17 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(AMD64/EM64T) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(AMD64/EM64T) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(AMD64/EM64T) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(AMD64/EM64T) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(AMD64/EM64T) and future errata kernels for update 5.

HP Smart Array B110i SATA RAID Controller Driver for Red Hat Enterprise Linux 6 (x86)

Version: 1.2.6-17 **(Recommended)**

Enhancements

Added support for Red Hat Enterprise Linux 6 Update 5.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (x86) supported by this binary rpm are:
2.6.32-131.el6 - Red Hat Enterprise Linux 6 Update 1(x86) and future errata kernels for update 1.
2.6.32-220.el6 - Red Hat Enterprise Linux 6 Update 2(x86) and future errata kernels for update 2.
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(x86) and future errata kernels for update 3.
2.6.32-358.el6 - Red Hat Enterprise Linux 6 Update 4(x86) and future errata kernels for update 4.
2.6.32-431.el6 - Red Hat Enterprise Linux 6 Update 5(x86) and future errata kernels for update 5.

HP Smart Array B110i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 1.2.6-17 **(Recommended)**

Enhancements

Added support for Secure Boot.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (AMD64/EM64T) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (AMD64/EM64T) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (AMD64/EM64T) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (AMD64/EM64T) and future errata kernels for SP 3.

HP Smart Array B110i SATA RAID Controller Driver for SUSE LINUX Enterprise Server 11 (x86)

Version: 1.2.6-17 **(Recommended)**

Enhancements

Added support for Secure Boot.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of SUSE LINUX Enterprise Server 11 (x86) supported by this binary rpm are:
2.6.32.12-0.7 - SUSE LINUX Enterprise Server 11 SP 1 (x86) and future errata kernels for SP 1.
3.0.13-0.27.1 - SUSE LINUX Enterprise Server 11 SP 2 (x86) and future errata kernels for SP 2.
3.0.76-0.11.1 - SUSE LINUX Enterprise Server 11 SP 3 (x86) and future errata kernels for SP 3.

Driver - Storage Fibre Channel

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HP Storage Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012

Version: 3.2.1.0 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- For Brocade 4 and 8 Gb FC HBAs, user modification of the I/O Interrupt Latency take effect immediately.

Enhancements

Update driver to version 3.2.1.0.

Supported Devices and Features

This driver supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Storage Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012 R2

Version: 3.2.3.1 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Enhancements

Initial driver to support Microsoft Windows Server 2012 R2

Supported Devices and Features

This driver supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Storage Fibre Channel Adapter Kit for the Emulex Storport Driver for Windows Server 2012 and 2012 R2

Version: 2.76.3.1 **(Optional)**

Important Note!

Release Notes:

HP StorageWorks Emulex Adapters Release Notes

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Fixes

- Host responds early to a requested resend delay(RRD) by a tape device
- Resolved an issue where the I/O hangs when performing a LUN reset with outstanding I/O activity

Enhancements

Enhancements from previous version:

- Initial support for the HP LPe1605 16Gb FC HBA for BladeSystem c-Class device
- Added support for Windows Server 2012 R2
- Enhanced the discovery process for continuous Fabric change

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz Host bus Adapter

HP Storage Fibre Channel Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2

Version: 9.1.11.24 (B) **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Fixes

This driver update resolves an issue where disks appear as local and not as FC or FCoE disks on Windows 2012 R2 hosts with Qlogic HBAs and CNAs when viewed by the Virtual Machine Manager (VMM) product of the HP Insight Control suite of products.

Enhancements

This driver version is now supported on Windows Server 2012.

Supported Devices and Features

This driver supports the following HP adapters:

- HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA
- HP StorageWorks FC1243 4Gb PCI-X 2.0 Dual Channel HBA
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

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HP Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver

Version: 2.76.3.1 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Fixes

- Host responds early to a requested resend delay(RRD) by a tape device
- Resolved an issue where the I/O hangs when performing a LUN reset with outstanding I/O activity

Enhancements

Enhancements from previous version:

- Initial support for the HP LPe1605 16Gb FC HBA for BladeSystem c-Class device
- Enhanced the discovery process for continuous Fabric change

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz Adapter

HP Storage Fibre Channel Adapter Kit for the x64 QLogic Storport Driver

Version: 9.1.11.20 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

Fixes

- Fixed Ext Loopback test fails with Loopback connector (8Gb loop mode)
- The fwdump routine no longer terminates unexpectedly

Enhancements

- Added support for HP QMH2672 16Gb FC HBA

- Updated the Smart Component with driver version 9.1.11.20.
- Removed restrictions on writing mbx8 register
- The "Execution Throttle" field in nvram for 2600 series adapters can now be modified
- Added the ability to read 2600 series adapters ASIC temperature
- Added the ability to read ASIC temperature for OEM Adapters
- Added support for full 64 bit physical addressing
- Added support for the QLE10000 series adapters
- Removed support for 2Gb speed in port supported speed for 16Gb FC in 2600 series adapters
- External loopback supports OEM adapters when in loop mode

Supported Devices and Features

This driver supports the following HP adapters:

- HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA
- HP StorageWorks FC1243 4Gb PCI-X 2.0 Dual Channel HBA
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

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HP Storage Fibre Channel Adapter Kit for the x86 Emulex Storport Driver

Version: 2.76.3.1 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Fixes

- Host responds early to a requested resend delay(RRD) by a tape device
- Resolved an issue where the I/O hangs when performing a LUN reset with outstanding I/O activity

Enhancements

Enhancements from previous version:

- Initial support for the HP LPe1605 16Gb FC HBA for BladeSystem c-Class device

- Enhanced the discovery process for continuous Fabric change

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz Adapter

HP Storage Fibre Channel Adapter Kit for the x86 QLogic Storport Driver

Version: 9.1.11.20 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

Fixes

- Fixed Ext Loopback test fails with Loopback connector (8Gb loop mode)
- The fwdump routine no longer terminates unexpectedly

Enhancements

- Added support for HP QMH2672 16Gb FC HBA
- Updated the Smart Component with driver version 9.1.11.20.
- Removed restrictions on writing mbx8 register
- The "Execution Throttle" field in nvram for 2600 series adapters can now be modified
- Added the ability to read 2600 series adapters ASIC temperature
- Added the ability to read ASIC temperature for OEM Adapters

- Added support for full 64 bit physical addressing
- Added support for the QLE10000 series adapters
- Removed support for 2Gb speed in port supported speed for 16Gb FC in 2600 series adapters
- External loopback supports OEM adapters when in loop mode

Supported Devices and Features

This driver supports the following HP adapters:

- HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA
- HP StorageWorks FC1243 4Gb PCI-X 2.0 Dual Channel HBA
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

HP Storage Fibre Channel Over Ethernet Adapter Kit for the Emulex Storport Driver for Windows Server 2012 and 2012 R2

Version: 2.76.3.1 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

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Fixes

- Host responds early to a requested resend delay(RRD) by a tape device
- Resolved an issue where the I/O hangs when performing a LUN reset with outstanding I/O activity

Enhancements

Enhancements from previous version:

- Added support for Windows Server 2012 R2
- Enhanced the discovery process for continuous Fabric change

Supported Devices and Features

This driver supports the following HP adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP StorageWorks CN1000E Dual Port Converged Network Adapter
- HP StorageWorks CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Storage Fibre Channel Over Ethernet Adapter Kit for the QLogic Storport Driver for Windows Server 2012 and 2012 R2

Version: 9.1.11.12 (B) **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Fixes

This driver update resolves an issue where disks appear as local and not as FC or FCoE disks on Windows 2012 R2 hosts with Qlogic HBAs and CNAs when viewed by the Virtual Machine Manager (VMM) product of the HP Insight Control suite of products.

Enhancements

This driver version now supports Windows Server 2012.

Supported Devices and Features

This driver supports the following HP adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP Storage Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver

Version: 2.76.3.1 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Fixes

- Host responds early to a requested resend delay(RRD) by a tape device
- Resolved an issue where the I/O hangs when performing a LUN reset with outstanding I/O activity

Enhancements

Enhancements from previous version:

Enhanced the discovery process for continuous Fabric change

Supported Devices and Features

This driver supports the following HP adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP StorageWorks CN1000E Dual Port Converged Network Adapter
- HP StorageWorks CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Storage Fibre Channel Over Ethernet Adapter Kit for the x64 QLogic Storport Driver

Version: 9.1.10.19 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Fixes

- Fixed empty firmware image version due to 8200 Series adapter (based on latest controller revision) not recognized by driver
- Fixed BSOD that occurred when running the FCoE Internal loopback when the mailbox set config fails
- Fixed crash in fwdump routine; now dumps fw

Enhancements

- Updated the Smart Component to contain driver version 9.1.10.19.
- Added 8300 series Adapter temperature handling
- Added adapter disable check on timer routine re-init state handling
- Added registry commands to control the IO timeout event log/sense data report for Microsoft Windows 12
- Removed event logging for fw dump event
- Limited the MSI-X resources to 2

- Use macros to access SRB and SRB_EXT for Microsoft Windows 12

Supported Devices and Features

This driver supports the following HP adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP Storage Fibre Channel Over Ethernet Adapter Kit for the x86 Emulex Storport Driver

Version: 2.76.3.1 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Emulex Adapters Release Notes

Fixes

- Host responds early to a requested resend delay(RRD) by a tape device
- Resolved an issue where the I/O hangs when performing a LUN reset with outstanding I/O activity

Enhancements

Enhancements from previous version:

Enhanced the discovery process for continuous Fabric change

Supported Devices and Features

This driver supports the following HP adapters:

- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC553i 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP NC553m 10Gb 2-port FlexFabric 10Gb Converged Network Adapter
- HP StorageWorks CN1000E Dual Port Converged Network Adapter
- HP StorageWorks CN1100E Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter

HP Storage Fibre Channel Over Ethernet Adapter Kit for the x86 QLogic Storport Driver

Version: 9.1.10.19 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Fixes

- Fixed empty firmware image version due to 8200 Series adapter (based on latest controller revision) not recognized by driver
- Fixed BSOD that occurred when running the FCoE Internal loopback when the mailbox set config fails
- Fixed crash in fwdump routine; now dumps fw

Enhancements

- Updated the Smart Component to contain driver version 9.1.10.19.
- Added 8300 series Adapter temperature handling
- Added adapter disable check on timer routine re-init state handling
- Added registry commands to control the IO timeout event log/sense data report for Microsoft Windows 12
- Removed event logging for fw dump event
- Limited the MSI-X resources to 2
- Use macros to access SRB and SRB_EXT for Microsoft Windows 12

Supported Devices and Features

This driver supports the following HP adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP Storage x64 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2008

Version: 3.2.1.0 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Prerequisites

KB968675 (or higher) is recommended. This KB fixes a non paged memory leak in Windows 2008 storage stack.

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- For Brocade 4 and 8 Gb FC HBAs, user modification of the I/O Interrupt Latency take effect immediately.

Enhancements

Updated driver version to 3.2.1.0.

Supported Devices and Features

This driver supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Storage x64 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2008 R2

Version: 3.2.1.0 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- For Brocade 4 and 8 Gb FC HBAs, user modification of the I/O Interrupt Latency take effect immediately.

Enhancements

Updated driver version to 3.2.1.0.

Supported Devices and Features

This driver supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Storage x86 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2008

Version: 3.2.1.0 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

To keep drivers and boot code synchronized, be sure to update your adapter with the latest boot image from www.hp.com before you install or update adapter driver packages.

Prerequisites

KB968675 (or higher) is recommended. This KB fixes a non paged memory leak in Windows 2008 storage stack.

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- For Brocade 4 and 8 Gb FC HBAs, user modification of the I/O Interrupt Latency take effect immediately.

Enhancements

Updated driver version to 3.2.1.0.

Supported Devices and Features

This driver supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

Linux FC Driver Kit for HP Brocade HBAs and mezzanine HBAs

Version: 3.2.1.0 **(Recommended)**

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- Enhanced Brocade Linux driver to handle multiple paths (Critical disks) to the KDUMP device during kernel dump with direct attach storage configurations.
- For Brocade 4 and 8 GB FC HBAs, user modifications of the I/O Interrupt Latency take effect immediately.

Enhancements

This is the first Drop of the Brocade Driver rpm

Linux FC Driver Kit for HP Brocade HBAs and mezzanine HBAs

Version: 3.2.1.0 **(Recommended)**

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- Enhanced Brocade Linux driver to handle multiple paths (Critical disks) to the KDUMP device during kernel dump with direct attach storage configurations.
- For Brocade 4 and 8 GB FC HBAs, user modifications of the I/O Interrupt Latency take effect immediately.

Enhancements

This is the first Drop of the Brocade Driver rpm

Linux FC Driver Kit for HP Brocade HBAs and mezzanine HBAs

Version: 3.2.1.0 **(Recommended)**

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- Enhanced Brocade Linux driver to handle multiple paths (Critical disks) to the KDUMP device during kernel dump with direct attach storage configurations.
- For Brocade 4 and 8 GB FC HBAs, user modifications of the I/O Interrupt Latency take effect immediately.

Enhancements

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Version: 3.2.1.0 **(Recommended)**

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- Enhanced Brocade Linux driver to handle multiple paths (Critical disks) to the KDUMP device during kernel dump with direct attach storage configurations.
- For Brocade 4 and 8 GB FC HBAs, user modifications of the I/O Interrupt Latency take effect immediately.

Enhancements

This is the first Drop of the Brocade Driver rpm

Linux FC Driver Kit for HP Brocade HBAs and mezzanine HBAs

Version: 3.2.1.0 **(Recommended)**

Fixes

- The user configured path tov now persists across server reboots. Also, changing dev_loss_tmo will no longer cause the user configured path tov to change.
- Enhanced Brocade Linux driver to handle multiple paths (Critical disks) to the KDUMP device during kernel dump with direct attach storage configurations.
- For Brocade 4 and 8 GB FC HBAs, user modifications of the I/O Interrupt Latency take effect immediately.

Enhancements

This is the first Drop of the Brocade Driver rpm

Linux FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs

Version: 8.2.2.33 **(Recommended)**

Fixes

- Corrected an issue with an incorrect FCP Priority value being detected for LUNs greater than 128.
- Corrected an issue where a PCI function reset could not be performed when the adapter was in offline mode.

Enhancements

- Added support for Red Hat Enterprise 5 update 10

- Added support for HP LPe1605 16Gb FC HBA for BladeSystem c-Class

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC550SFP Dual Port 10GbE Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

Linux FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs

Version: 8.2.2.33 **(Recommended)**

Fixes

- Corrected an issue with an incorrect FCP Priority value being detected for LUNs greater than 128.
- Corrected an issue where a PCI function reset could not be performed when the adapter was in offline mode.

Enhancements

- Added support for Red Hat Enterprise 5 update 10
- Added support for HP LPe1605 16Gb FC HBA for BladeSystem c-Class

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
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- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC550SFP Dual Port 10GbE Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

Linux FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs

Version: 8.3.7.39 **(Recommended)**

Fixes

- Corrected an issue with an incorrect FCP Priority value being detected for LUNs greater than 128.
- Corrected an issue where a PCI function reset could not be performed when the adapter was in offline mode.

Enhancements

- Added support for Red Hat Enterprise 6 update 5
- Added support for HP LPe1605 16Gb FC HBA for BladeSystem c-Class

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA

- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
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- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC550SFP Dual Port 10GbE Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

Linux FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs

Version: 8.3.7.39 **(Recommended)**

Fixes

- Corrected an issue with an incorrect FCP Priority value being detected for LUNs greater than 128.
- Corrected an issue where a PCI function reset could not be performed when the adapter was in offline mode.

Enhancements

- Added support for HP LPe1605 16Gb FC HBA for BladeSystem c-Class

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter

- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
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- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
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- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC550SFP Dual Port 10GbE Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

Linux FCoE/FC Driver Kit for HP Emulex CNAs, HBAs and mezzanine HBAs and CNAs

Version: 8.3.7.39 **(Recommended)**

Fixes

- Corrected an issue with an incorrect FCP Priority value being detected for LUNs greater than 128.
- Corrected an issue where a PCI function reset could not be performed when the adapter was in offline mode.

Enhancements

- Added support for HP LPe1605 16Gb FC HBA for BladeSystem c-Class

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
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- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs

Version: 8.04.00.12.06.0-k2-1 **(Recommended)**

Fixes

- Resolved a locking issue between driver ISR and mailbox routines.
- The MBX_INTR_WAIT flag clears when the mailbox time-out occurs.
- Move loopback mode resets after a chip reset check.
- Unload stops responding after issuing BSG commands to vport.
- Now obtains the loopback iteration count from a bsg request.
- Parameterize the link speed string conversion function.
- Avoid null pointer dereference in shutdown routine.

Enhancements

- This is the initial release of the Qlogic Driver binary rpm.
- Added Gen3 PCIe speed 8GT/s to the log message.
- Added the 16Gb/s case to get the port speed capability.
- The firmware now rejects loopback requests if one is already in progress.
- The lock owner is displayed on lock acquire failure.

Supported Devices and Features

SUPPORTED KERNELS:
The kernels of Red Hat Enterprise Linux 6 (AMD64/EM64T) supported by this binary rpm are:
2.6.32-279.el6 - Red Hat Enterprise Linux 6 Update 3(AMD64/EM64T) and future errata kernels for update

3.

Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs

Version: 8.04.00.12.5.6-k2-2.rhel5u10 **(Optional)**

Enhancements

Added driver support for Red Hat Enterprise Linux 5 update 10 (RHEL 5.10).

Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs

Version: 8.04.00.12.5.6-k2-2.rhel5u10 **(Optional)**

Enhancements

Added driver support for Red Hat Enterprise Linux 5 update 10 (RHEL 5.10).

Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs

Version: 8.04.00.12.11.1-k2 (B) **(Optional)**

Fixes

- Resolved a locking issue between driver ISR and mailbox routines.
- The MBX_INTR_WAIT flag clears when the mailbox time-out occurs.
- Added Gen3 PCIe speed 8GT/s to the log message.
- Added the 16Gb/s case to get the port speed capability.
- The firmware now rejects loopback requests if one is already in progress.
- Display the lock owner on lock acquire failure.
- Move loopback mode reset after chip reset check.
- Unload hangs after issuing BSG commands to vport.
- Obtain loopback iteration count from bsg request.
- Avoid null pointer dereference in shutdown routine.

Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs

Version: 8.04.00.12.11.1-k2 (B) **(Optional)**

Fixes

- Resolved a locking issue between driver ISR and mailbox routines.
- The MBX_INTR_WAIT flag clears when the mailbox time-out occurs.
- Added Gen3 PCIe speed 8GT/s to the log message.
- Added the 16Gb/s case to get the port speed capability.
- The firmware now rejects loopback requests if one is already in progress.
- Display the lock owner on lock acquire failure.
- Move loopback mode reset after chip reset check.
- Unload hangs after issuing BSG commands to vport.
- Obtain loopback iteration count from bsg request.

- Avoid null pointer dereference in shutdown routine.

Driver - Storage Tape

Top

HP StoreEver Tape Drivers for Windows

Version: 3.9.0.0 **(Recommended)**

Enhancements

- Added support and drivers for Microsoft Windows 8.1 (x64) and Microsoft Windows Server 2012 R2 (x64)
- HP StoreEver MSL6480 supported with driver versions 3.0.0.0 and above - (not available for IA64 operating systems)
- See table below for operating system support and driver versions
  - **bold -** new driver versions
  - * - not supported

	Microsoft Windows Server Operating Systems				
Driver Description	Server 2008 x86	Server 2008 x64	Server 2008 R2 x64	Server 2012 x64	Server 2012 R2 x64
HP LTO - (LTO6 not supported on IA64)	**1.0.7.2**	1.0.7.1	**1.0.7.2**	**1.0.7.2**	**1.0.7.2**
HP DAT Tape Drive	1.7.1.0	1.7.1.0	1.7.1.0	1.7.1.0	**1.7.2.0**
HP USB Mass Storage Controller - (DAT 72 & 160 only)	6.07.2010	6.07.2010	6.07.2010	7.00.2012	*
HP SDLT/VS Tape Drive	*	*	*	*	*
HP ESL G3 Tape Library	7.5.7.1	7.5.7.1	7.5.7.1	7.5.8.1	**7.5.8.2**
HP MSL6480, G3, 1/8 Tape Library	3.0.0.0	3.0.0.0	3.0.0.0	3.0.0.0	**3.0.0.3**
HP ESL E Tape Library	1.5.1.0	1.5.1.0	1.5.1.0	1.5.1.1	*
HP MSL6000 Series Tape Library	3.0.2.0	3.0.2.0	3.0.2.0	*	*
HP DAT Tape Autoloader	1.0.1.3	1.0.1.3	1.0.1.3	*	*

Driver - System Management

Top

Combined Chipset Identifier for Windows Server 2008

Version: 8.2.0.0 **(Optional)**

Important Note!

Version 8.1.0.0 of this component is the final version to support installation under Windows Server 2003.

Enhancements

Added support for new processor options on HP ProLiant Gen8 servers.

Combined Chipset Identifier for Windows Server 2008 R2

Version: 8.2.0.0 **(Optional)**

Enhancements

Added support for new processor options on HP ProLiant Gen8 servers.

Combined Chipset Identifier for Windows Server 2008 x64 Edition

Version: 8.2.0.0 **(Optional)**

Important Note!

Version 8.1.0.0 of this component is the final version to support installation under Windows Server 2003 x64 Edition.

Enhancements

Added support for new processor options on HP ProLiant Gen8 servers.

Combined Chipset Identifier for Windows Server 2012

Version: 8.2.0.0 (A) **(Optional)**

Enhancements

Enable installation under Windows Server 2012 R2.

HP OpenIPMI Device Driver for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 8.5.2-*.rhel5 **(Optional)**

Important Note!

The HP OpenIPMI device driver features are now available in the Red Hat Enterprise Linux 5 Update 5 (or Later) Kernel. Therefore, you don't need to install this package.

Prerequisites

The Linux kernel ".config" file must have IPMI support enabled for rebuilds. This is not the default on some older Linux distributions.

If a different Linux kernel (e.g. an errata kernel) is used in place of the supported version of Linux, the standard Linux Kernel build environment will need to be installed. Error messages will be displayed during the rebuild process indicating which Linux packages are missing.

Fixes

- Suppressed logs where " channel_handler:Error Code: 0xc9" message was observed in /var/log/messages. This was expected messages as probe was done during the init.

HP OpenIPMI Device Driver for Red Hat Enterprise Linux 5 (x86)

Version: 8.5.2-*.rhel5 **(Optional)**

Important Note!

The HP OpenIPMI device driver features are now available in the Red Hat Enterprise Linux 5 Update 5 (or Later) Kernel. Therefore, you don't need to install this package.

Prerequisites

The Linux kernel ".config" file must have IPMI support enabled for rebuilds. This is not the default on some older Linux distributions.

If a different Linux kernel (e.g. an errata kernel) is used in place of the supported version of Linux, the standard Linux Kernel build environment will need to be installed. Error messages will be displayed during the rebuild process indicating which Linux packages are missing.

Fixes

- Suppressed logs where " channel_handler:Error Code: 0xc9" message was observed in /var/log/messages. This was expected messages as probe was done during the init.

HP ProLiant Gen8 Supplemental Chipset Identifier for Windows

Version: 1.0.0.0 **(Optional)**

Enhancements

Initial release to support the HP ProLiant DL580 Gen8.

HP ProLiant iLO 2 Management Controller Driver for Windows Server 2008

Version: 1.14.0.0 **(Recommended)**

Fixes

Corrected command timeout failures reported by the driver when communicating with iLO 2.

HP ProLiant iLO 2 Management Controller Driver for Windows Server 2008 x64 Editions

Version: 1.14.0.0 **(Recommended)**

Fixes

Corrected command timeout failures reported by the driver when communicating with iLO 2.

HP ProLiant iLO 2 Management Controller Driver for Windows Server 2012

Version: 1.15.0.0 (C) **(Optional)**

Enhancements

Add support for Microsoft Windows Server 2012 R2 on selected HP ProLiant G6 servers.

HP ProLiant iLO 3/4 Channel Interface Driver for Windows X64

Version: 3.10.0.0 **(Optional)**

Important Note!

The Channel Interface Driver was separated into its own component when the ProLiant Support Pack version 9.00 was released. Previously, the driver was a part of the *iLO 3 Management Controller Driver Package* component.

Fixes

Ensure the closing "</RIBCL>" tag is returned when the input RIBCL script contains the "<?xmlilo output-format="xml"?>" tag.

HP ProLiant iLO 3/4 Channel Interface Driver for Windows X86

Version: 3.10.0.0 **(Optional)**

Important Note!

The Channel Interface Driver was separated into its own component when the ProLiant Support Pack version 9.00 was released. Previously, the driver was a part of the *iLO 3 Management Controller Driver Package* component.

Fixes

Ensure the closing "</RIBCL>" tag is returned when the input RIBCL script contains the "<?xmlilo output-format="xml"?>" tag.

HP ProLiant iLO 3/4 Management Controller Driver Package for Windows Server 2008 X86

Version: 3.9.0.0 **(Optional)**

Prerequisites

The *HP ProLiant iLO 3/4 Channel Interface Driver for Windows X86* (version 3.4.0.0 or later) must be installed prior to this component. The Channel Interface Driver was previously included within this component, but is now installed separately.

Fixes

Corrected reporting of the memory size available to Windows when Advanced Memory Protection is configured for Online Spare mode.

HP ProLiant iLO 3/4 Management Controller Driver Package for Windows Server 2008/2012 X64

Version: 3.9.0.0 (B) **(Optional)**

Prerequisites

The *HP ProLiant iLO 3/4 Channel Interface Driver for Windows X64* (version 3.4.0.0 or later) must be

installed prior to this component. The Channel Interface Driver was previously included within this component, but is now installed separately.

Enhancements

Enable installation under Windows Server 2012 R2.

Driver - USB

Top

Intel USB 3.0 Drivers for Windows Server 2008 R2

Version: 2.5.0.19 **(Optional)**

Enhancements

Initial release.

Renesas Electronics USB 3.0 Drivers for Windows Server 2008 R2

Version: 3.0.23.0 **(Optional)**

Enhancements

Initial release.

USB Host Controller Identifier for Windows Server 2008

Version: 1.0.0.0 **(Optional)**

Enhancements

Initial release.

USB Host Controller Identifier for Windows Server 2008 x64 Edition

Version: 1.0.0.0 **(Optional)**

Enhancements

Initial release.

Driver - Video

Top

ATI ES1000 Video Controller Driver for Windows Server 2008

Version: 6.14.10.6748 **(Optional)**

Enhancements

Enhanced component-level logging has been implemented in the Smart Component installer. The generated log file will be located on the target system in the %SystemRoot%\cpqsystem\log directory under the name CPQSETUP.LOG.

ATI ES1000 Video Controller Driver for Windows Server 2008 x64 Editions

Version: 6.14.10.6748 **(Optional)**

Enhancements

- Added support for Microsoft Windows Server 2008 R2.
- Enhanced component-level logging has been implemented in the Smart Component installer. The generated log file will be located on the target system in the %SystemRoot%\cpqsystem\log directory under the name CPQSETUP.LOG.

Matrox G200eH Video Controller Driver for Windows Server 2008 X64

Version: 6.12.1.1030 **(Optional)**

Fixes

- Removed support for EDID 2.0.
- Removed 1024x768x43Hz from the supported resolution list.
- Hardened the detailed timings algorithm to prevent a possible division by zero.

Matrox G200eH Video Controller Driver for Windows Server 2008 X86

Version: 6.12.1.1030 **(Optional)**

Fixes

- Removed support for EDID 2.0.
- Removed 1024x768x43Hz from the supported resolution list.
- Hardened the detailed timings algorithm to prevent a possible division by zero.

Matrox G200eH Video Controller Driver for Windows Server 2012 X64

Version: 9.15.1.45 **(Optional)**

Enhancements

Initial release for Windows Server 2012.

Firmware - Blade Infrastructure

Top

HP 3Gb SAS BL Switch Firmware Smart Component for Linux

Version: 2.2.17.0 **(Optional)**

Enhancements

Enhancements/New Features:

- The HP 3Gb SAS Switch will now publish external IP addresses to Onboard Administrator versions 3.20 or later instead of the internal IP address.

HP BladeSystem c-Class Virtual Connect Firmware, Ethernet plus 4/8Gb 20-port and 8Gb 24-port FC Edition Component for Windows

Version: 4.10 **(Recommended)**

Prerequisites

The VC 4.10 HP Virtual Connect Release Notes contains the prerequisites.

Fixes

The latest list of issues resolved can be found in the VC 4.10 HP Virtual Connect Release Notes.

Supported Devices and Features

HP 10/10Gb Virtual Connect Ethernet Module for c-Class BladeSystem

HP Virtual Connect FlexFabric 10Gb/24-port Module for c-Class BladeSystem

HP Virtual Connect 4Gb Fibre Channel Module for c-Class BladeSystem

HP Virtual Connect 8Gb 24-port Fibre Channel Module for c-Class BladeSystem

HP Virtual Connect 8Gb 20-port Fibre Channel Module for c-Class BladeSystem

HP Virtual Connect Flex-10/10D Module for c-Class BladeSystem

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HP BladeSystem c-Class Virtual Connect Firmware, Ethernet plus 4/8Gb 20-port and 8Gb 24-port FC Edition Component for Linux

Version: 4.10 **(Recommended)**

Prerequisites

The VC 4.10 HP Virtual Connect Release Notes contains the prerequisites.

Fixes

The latest list of issues resolved can be found in the VC 4.10 HP Virtual Connect Release Notes.

Supported Devices and Features

HP 10/10Gb Virtual Connect Ethernet Module for c-Class BladeSystem

HP Virtual Connect FlexFabric 10Gb/24-port Module for c-Class BladeSystem

HP Virtual Connect 4Gb Fibre Channel Module for c-Class BladeSystem

HP Virtual Connect 8Gb 24-port Fibre Channel Module for c-Class BladeSystem

HP Virtual Connect 8Gb 20-port Fibre Channel Module for c-Class BladeSystem

HP Virtual Connect Flex-10/10D Module for c-Class BladeSystem

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Online HP 3Gb SAS BL Switch Firmware Smart Component for Windows

Version: 2.2.17.0 **(Optional)**

Enhancements

Enhancements/New Features:

- The HP 3Gb SAS Switch will now publish external IP addresses to Onboard Administrator versions 3.20 or later instead of the internal IP address.

Online HP 6Gb SAS BL Switch Firmware Smart Component for Linux

Version: 4.0.1.0 **(Recommended)**

Fixes

Firmware Dependency:

The devices listed below require minimum FW deliverables with HP Storage Manager version 4.0.1.0:

Device, Minimum Recommended Version

- HP D2600/D2700 Disk Enclosure, 0147
- HP 600 Modular Disk System, 3.60
- HP D6000 Disk Enclosure, 2.38
- HP P2000 MSA Array System, TS230P06
- HP Smart Array P711m/P712m Controller, 5.70
- HP Smart Array P721m Controller, 3.54

Problems Fixed:

- Fixed issue in which the “Create and Assign Zone Group” operation did not display an error message if the required zone group name was blank.
- Fixed a rare issue where repeatedly rebooting the switch may cause some drives in the storage

enclosure to not be detected.

Enhancements

Enhancements/New Features:

- Added support for the HP MSA 2040 Storage System.

Online HP 6Gb SAS BL Switch Firmware Smart Component for Windows

Version: 4.0.1.0 **(Recommended)**

Fixes

Firmware Dependency:

The devices listed below require minimum FW deliverables with HP Storage Manager version 4.0.1.0:

Device, Minimum Recommended Version

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- HP 600 Modular Disk System, 3.60
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- Fixed a rare issue where repeatedly rebooting the switch may cause some drives in the storage enclosure to not be detected.

Enhancements

Enhancements/New Features:

- Added support for the HP MSA 2040 Storage System.

Online HP BladeSystem c-Class Onboard Administrator Firmware Component for Linux

Version: 4.11 **(Optional)**

Important Note!

Important Notes

- **General**
  - Saving the OA (OA) configuration settings to a USB key should be accomplished with the

"UPLOAD CONFIG USB" command. This command only requires a file name with a ".cfg" extension without any spaces and is consistent with the GUI Configuration Scripts page functionality. Utilizing the more generic "UPLOAD CONFIG" CLI command can perform the same task, but the syntax is more complicated and therefore not recommended.

- **Authentication**
  - OA 3.70 and later allows the hash signature algorithm to be changed. If a SHA1 certificate is needed in your network infrastructure, use the OA GENERATE KEY command to change the key size and hash algorithm. The default SSL key is RSA/2048/SHA-256.
- **EFM / iLO Update**
  - Ensure your iLO 3 firmware version is 1.20 or later before attempting to flash iLO 3 version 1.50.
- **FIPS**
  - Enabling FIPS mode on an OA module or redundant pair of OA modules automatically forces the OA module(s) to be reset to factory defaults due to FIPS requirements. Please configure the OA module(s) for FIPS mode operation prior to performing any other enclosure or OA configuration including configuration of Virtual Connect.
  - OA 3.70 and later no longer supports HMAC-MD5 and HMAC-SHA-96 for message authentication. Only FIPS 140-2 approved ciphers are supported.
  - OA 3.71 is in active evaluation for FIPS as referenced in the 140-2 In Process list located at http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/140InProcess.pdf.
- **GUI**
  - OA 3.70 and later changed the default certificate hash algorithm from SHA1 to SHA256. Browsers on operating systems released prior to 2004 that do not have the latest security related patches/updates applied may not be able to connect to the OA web interface. Ensure that the following minimum requirements for each operating system are met to support SHA256.
    - Windows XP requires SP3.
    - Windows 2003 Server SP2 requires an update to support SHA256. For more information see the Microsoft Support website: http://support.microsoft.com/kb/968730.
    - RedHat 4 was originally shipped with OpenSSL 0.9.7 which does not support SHA256. Update the operating system with the appropriate RPM to use openssl-0.9.8 or later.
  - Internet Explorer is not able to access the OA Web Interface if the OA certificate is generated using SHA-224 as SSL hash signature when running on Windows XP, Windows Vista and Windows 7. This is not the default hash function for OA self-signed certificates.
- **Network**
  - An issue exists with the Emulex firmware prior to version 4.1.450.7 that can result in the Device Control Channel (DCC) being unavailable with a 10Gb physical link. When this issue exists for full height G7 and Gen8 server blades (including the HP ProLiant BL680 G7, BL685c G7, BL620 G7, and BL660 Gen8) with HP NC55x LOMs or FLB554 FlexibleLOMs configured in a Virtual Connect environment, a loss of network connectivity may occur when updating the OA firmware from version 3.56 or earlier to version 3.60 or later. In order to ensure that no loss of network connectivity occurs during the OA firmware update it is necessary to ensure that network adapter firmware is updated to correct the DCC unavailable condition in accordance with Customer Advisory c03600027 prior to performing the OA firmware upgrade. See the Customer Advisory c03600027 for more information.
- **Power**
  - For OA v4.01 and later, the factory default value associated with the Dynamic Power feature was changed from "enabled" to "disabled". The operating efficiency of the

currently available enclosure power supplies makes this firmware-based power management strategy unnecessary in most cases. The existing configuration of the Dynamic Power setting will not be altered from its value prior to upgrading to OA 4.01 or greater. See the Customer Advisory c03957955 for more information.

- **Telnet**
  - OA v3.70 and later firmware change the default state of the Telnet service to "disabled." Note that the default "disabled" state will only take effect when there is no existing configuration on the OA or following an OA factory reset operation. In the case of firmware upgrade to an already configured OA/enclosure, the existing state of the Telnet service will not be changed.

Known Issues

- **General**
  - HP c-Class BladeSystem ProLiant and Integrity iLO virtual media performance will be limited based on the activity and number of simultaneous iLO virtual media sessions and the OA workload. The OA Enclosure DVD and Enclosure Firmware Management features also use the iLO virtual media feature and will have similar performance limitations. HP recommends that you limit the number of simultaneous sessions to prevent media timeout issues. If timeout issues are experienced during OS install or firmware updates, reduce the number of virtual media sessions in progress, and restart the operation.
  - When performing a reset to factory defaults on redundant OA modules within an enclosure, a redundancy role change may occur during the subsequent reboot of the modules. This does not impact the reset to factory defaults operation and both modules will be successfully reset to factory default state.
  - The OA Link to Integrated Lights-Out 3 (iLO 3) .NET Integrated Remote Console (IRC) may occasionally fail to launch. See the Customer Advisory c03077476 for more information.
  - The OA online-help states that a single instance of the Insight RS software can monitor only 500 devices. Newer versions of the Insight RS software have different limits. For information about the Hosting Device requirements and the number of devices that can be monitored by a version of the Insight RS software, see the HP Insight Remote Support Installation and Configuration Guide at http://www.hp.com/support.
- **Browser Support**
  - Google Chrome v27.0.1453.94 does not function properly with OA 4.01. For more details see Google issue report, http://code.google.com/p/chromium/issues/detail?id=244043.
- **Enclosure Firmware Management**
  - Enclosure Firmware Management (EFM) is not supported on the following OA Hardware Modules:
    - HP BladeSystem c3000 OA (PN# 448589-B21, and 461514-B21).
    - HP BladeSystem c7000 OA (PN# 412142-B21).
  - EFM tracking and reporting will not reflect the changes made using other tools, such as HP SUM or HP SIM Version Control, if the firmware on a blade is updated using tools other than EFM. An EFM discovery or update must be performed before the correct versions of firmware will be reported by the OA.
  - EFM will not work reliably and should be not be used on slow network links, i.e less than 100 Mbps.
  - While running EFM the OA response time may be slower than normal, and you may encounter spurious brief intervals of the enclosure status reported as degraded. Messages or alert notifications of this condition, as well as enclosure OK messages that appear subsequently can be safely ignored while running EFM.

- When used with SPP 2012.02.00, EFM will not properly report some network adapter and hard disk drive firmware versions to the OA EFM feature. This issue is corrected with later versions of the SPP.
- EFM will fail on any blade if SSH is disabled in the blade's iLO configuration settings. By default, SSH is enabled in iLO.

- **FIPS**
  - When running a previous version of the OA firmware with Strong Encryption mode enabled, an entry may be logged to the OA syslog indicating that the OA is operating in FIPS mode after updating the OA firmware to version 3.70 or later. This OA syslog entry – "FIPS: OA is operating in FIPS Mode On" – inaccurately represents the current FIPS mode configuration and can safely be ignored. FIPS mode will not be enabled until configured by user action.

Fixes

Firmware Dependency

For firmware compatibility information please see HP Service Pack for ProLiant Information Library, http://www.hp.com/go/spp/documentation.

Problems Fixed

- **General**
  - The OA CLI command RESET ILO fails to successfully reset the specified iLO with a response indicating "No iLO link detected" when executed on HP ProLiant BL2x220c G5, G6, and G7 Server Blades in bays 1-8.
  - Reset to factory defaults fails for redundant OA modules.
  - OA displays FCoE functionality associated with incorrect physical function (PF) for HP FlexFabric 10Gb 2-port 526FLB Adapter.
  - On initial insertion into the enclosure, the asset tag data for a server blade may not be populated or may be displayed as "[Unknown]" in the "Server Device Bay Information" tab of the web GUI or after executing the "SHOW SERVER INFO" command from the CLI.
  - After making network configuration-related changes to the OA, the following message may be logged to the configured remote syslog server from the standby, "OA: Remote Syslog: Unable to open enclosure configuration file. Exiting".
  - OA v4.01 may hang when booting if the Alertmail Sender Name string includes space characters and is either 39 or 40 characters long.
- **GUI**
  - The GUI cannot complete the loading process on linked enclosures for USER or OPERATOR accounts without OA bay access enabled. This behavior was only exhibited in OA 4.01 firmware.
- **Integrity Blade Servers**
  - The OA fails to update the IP address of a HP Integrity BL860c or BL870c Server Blade after enabling an EBIPA address for the blade. OA commands such as CONNECT SERVER will fail until either the OA is restarted or the blade's iLO is reset.
- **IPv6**
  - The CONNECT SERVER CLI command fails in IPv6-only network environment.
  - The HTTP service for IPv6 may become unresponsive configuring the OA with an IPv6 address and enabling IPv6 support through the GUI or CLI within a very short time. See the Customer Advisory c04012934 for more information.
- **OA Redundancy**

- When an OA takeover is initiated from either the CLI or the GUI and the management network is under an extreme load, a kernel panic and reboot of the new standby module may be observed.

- **Power**
  - Spurious enclosure power supply insertion and subsequent removal events logged for unpopulated power supply bays in a c3000 Enclosure.

Enhancements

Enhancements/New Features:

- **Hardware Additions**
  - HP LPe1605 16Gb FC HBA for BladeSystem c-Class.
  - HP Smart Array P230i Controller.
- **Features Additions and Changes**
  - **Authentication**
    - Enhanced nested LDAP group support to include sub-tree search of the configured search contexts.
    - Enhanced nested LDAP group support to perform sub-tree search at specified search contexts.
  - **EFM**
    - Inability to power on all blades within an enclosure due to insufficient enclosure power after running EFM update process on blades with the "Forced Power Off" EFM configuration option enabled.
  - **Enclosure iLO Federation**
    - By default, ILOs within an enclosure are not able to communicate in a peer to peer fashion. If you wish to enable ILO federation between blades in an individual enclosure, you must first enable that via the Enclosure iLO Federation Support configuration options of the OA CLI and GUI interfaces. In addition to enabling this support for the enclosure, you must also enable this support individually for any desired blades through the ILO interfaces.
  - **FIPS**
    - Cryptographic Known Answer Tests (KATs) now run on each OA reboot and/or power cycle irrespective of the FIPS mode setting.
  - **HP Insight Remote Support**
    - Added support for the Insight Remote Support Direct Connect configuration.
    - Added CLI and GUI interfaces for importing a self-signed certificate from an Insight RS Hosting Device into the OA. This certificate is used to validate the signing authority of the Insight RS Hosting Device, which is required to allow communication with the Hosting Device when the OA is in FIPS mode.
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    - The OA supports DDNS for IPv6 addresses.
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    - Added support for TLS 1.1 and TLS 1.2 as a secure communication protocol.
    - Enabled "diffie-hellman-group1-sha1" as a supported SSH key exchange option by default. Support for "diffie-hellman-group1-sha1" as a supported SSH key exchange option was disabled in OA 4.01 by default. This can be disabled via the "SET SECURESH SERVER KEX DHG1" CLI command if required. Note that

updating to OA 4.11 will not change the current setting but resetting the OA factory default settings will result in"diffie-hellman-group1-sha1" key exchange being enabled. Any saved OA configuration scripts should be updated appropriately.

- **Browser Support**
  - Updated web browser support as follows:
    - Microsoft® Internet Explorer 8, 9, 10 and 11
    - Mozilla™ Firefox® ESR 17 and ESR 24
    - Google Chrome™

Online HP BladeSystem c-Class Onboard Administrator Firmware Component for Windows

Version: 4.11 **(Optional)**

Important Note!

Important Notes

- **General**
  - Saving the OA (OA) configuration settings to a USB key should be accomplished with the "UPLOAD CONFIG USB" command. This command only requires a file name with a ".cfg" extension without any spaces and is consistent with the GUI Configuration Scripts page functionality. Utilizing the more generic "UPLOAD CONFIG" CLI command can perform the same task, but the syntax is more complicated and therefore not recommended.
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- **Browser Support**
  - Google Chrome v27.0.1453.94 does not function properly with OA 4.01. For more details see Google issue report, http://code.google.com/p/chromium/issues/detail?id=244043.
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Fixes

Firmware Dependency

For firmware compatibility information please see HP Service Pack for ProLiant Information Library, http://www.hp.com/go/spp/documentation.

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- **IPv6**
    - The CONNECT SERVER CLI command fails in IPv6-only network environment.
    - The HTTP service for IPv6 may become unresponsive configuring the OA with an IPv6 address and enabling IPv6 support through the GUI or CLI within a very short time. See the Customer Advisory c04012934 for more information.
- **OA Redundancy**
    - When an OA takeover is initiated from either the CLI or the GUI and the management network is under an extreme load, a kernel panic and reboot of the new standby module may be observed.
- **Power**
    - Spurious enclosure power supply insertion and subsequent removal events logged for unpopulated power supply bays in a c3000 Enclosure.

Enhancements

Enhancements/New Features:

- **Hardware Additions**
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- **Features Additions and Changes**
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    - **Enclosure iLO Federation**
        - By default, ILOs within an enclosure are not able to communicate in a peer to peer fashion. If you wish to enable ILO federation between blades in an individual enclosure, you must first enable that via the Enclosure iLO Federation Support configuration options of the OA CLI and GUI interfaces. In addition to enabling this support for the enclosure, you must also enable this

support individually for any desired blades through the ILO interfaces.

- **FIPS**
  - Cryptographic Known Answer Tests (KATs) now run on each OA reboot and/or power cycle irrespective of the FIPS mode setting.
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  - Added support for the Insight Remote Support Direct Connect configuration.
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  - Added support for TLS 1.1 and TLS 1.2 as a secure communication protocol.
  - Enabled “diffie-hellman-group1-sha1” as a supported SSH key exchange option by default. Support for “diffie-hellman-group1-sha1” as a supported SSH key exchange option was disabled in OA 4.01 by default. This can be disabled via the “SET SECURESH SERVER KEX DHG1” CLI command if required. Note that updating to OA 4.11 will not change the current setting but resetting the OA factory default settings will result in“diffie-hellman-group1-sha1” key exchange being enabled. Any saved OA configuration scripts should be updated appropriately.

- **Browser Support**
  - Updated web browser support as follows:
    - Microsoft® Internet Explorer 8, 9, 10 and 11
    - Mozilla™ Firefox® ESR 17 and ESR 24
    - Google Chrome™

Firmware - Lights-Out Management

Top

Firmware CD Supplemental Update / Online ROM Flash Component for Linux - HP Integrated Lights-Out 2

Version: 2.23 **(Recommended)**

Fixes

- When the iLO DNS name was changed the updated DNS name would not appear in the OA until after a system reset.
- Users were unable to mount a Virtual CD/DVD-ROM in SLES 11 SP3.
- The following message appears when the Java IRC is started: This application will be blocked in a future Java security update because the JAR file manifest does not contain the Permissions attribute. This message will continue to appear when you run Java 7 unless you install an SSL certificate that is signed by a trusted Certification Authority.
- After importing a SSL certificate the iLO 2 webGUI could become slow to respond.

Firmware CD Supplemental Update / Online ROM Flash Component for Linux - HP Integrated Lights-Out 3

Version: 1.70 **(Optional)**

Prerequisites

Customers running a version of iLO 3 previous to v1.20 must upgrade v1.20 before upgrading to this version. iLO 3 v1.20 may be obtained from the following FTP locations:

Linux: ftp://ftp.hp.com/pub/softlib2/software1/sc-linux-fw-ilo/p1255562964/v64722
Windows: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw-ilo/p901462262/v64721
Win64: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw-ilo/p1728391553/v64720

Enhancements

List your enhancements here.

Firmware CD Supplemental Update / Online ROM Flash Component for Linux - HP Integrated Lights-Out 4

Version: 1.40 **(Optional)**

Important Note!

- IPv6 network communications - dedicated network connection only
  - Supported Networking Features
    - IPv6 Static Address Assignment
    - IPv6 SLAAC Address Assignment
    - IPv6 Static Route Assignment
    - Integrated Remote Console
    - OA Single Sign-On
    - Web Server
    - SSH Server
    - SNTP Client
    - DDNS Client
    - DHCPv6 Address Assignment
    - DHCPv6 Domain, DNS, and NTP Configuration
    - RIBCL over IPv6
    - SNMP
    - HP-SIM Single Sign-On
    - WinDBG Support
    - CPQLOCFG/HPLOMIG over an IPv6 connection
    - Scriptable Virtual Media
    - CLI/RIBCL Key Import over IPv6
    - iLO Federation
  - Networking Features not supported by IPv6 in this release
    - Shared Network Port Connections
    - Authentication using LDAP and Kerberos over IPv6
    - IPMI

        - NETBIOS-WINS
        - ESKM Support for Storage
        - ERS Support
    - There may be times when you run iLO Federation Management that you will receive a "data inconsistency error". Those errors occur when an iLO on your network is not responding correctly refer to the multisystem map page to help troubleshoot that condition.
    - iLO does not accept IPv6 multicast global scope configuration.

Fixes

FIXES:
The following issues are resolved in this firmware version:

- Server Auto Power-On might be triggered when iLO is reset through IPMI.

- Firmware updates that use USB Virtual Media might fail due to secure flash image corruption.

- SSH sockets might take 30 seconds to close.

- The GET_OA_INFO command output does not include the OA IPv6 address.

- The iLO 4 SNMP stack might become unresponsive to SNMP requests.

- The file upload section is not displayed on the iLO web interface Firmware page.

- The Integrated Remote Console (IRC) stops working when iLO is busy.

- The .NET Integrated Remote Console (IRC) fails to start in Chrome if a trusted certificate is not installed.

- Kerberos Keytab files cannot be added from the iLO web interface.

- An error occurs if you register for Remote Support with proxy settings, and then you delete the proxy settings.

- Directory settings information is not consistent between the iLO web interface and the scripting interfaces.

- The server shuts down when a user exits the system RBSU during an iLO reset.

- Kerberos Keytab files cannot be added when FIPS mode is enabled.

- A service event is not generated when a hard disk drive fails during boot.

- The Acquire dialog box is displayed when the remote console is started, but there is no active session to acquire.

- The status of a spare drive changes to inactive when the spare drive is in use.

- When the security override switch is enabled, long login names might fail.

- TPM status cannot be viewed by using XML scripts.

- The IPv6 default gateway might be saved as a static default gateway.

- When configured for FIPS mode/AES-DES the key exchange method ‘diffie-hellman group1 sha1’ should not be supported.

- The iLO clock fails to synchronize with NTP when a Primary Time Server is not entered.

- The iLO webserver unexpectedly quits after the NVRAM is cleared.

- The iLO DHCPv6/EBIPA address is not displayed in OA when OA is configured on an IPv6-only network.

- The Backup ROM date is displayed incorrectly on the Diagnostics page in the iLO web interface.

- The IPMI Get Sensor Reading command returns incorrect data for the Inlet Ambient sensor.

- Auto Power-On takes two minutes when the delay is set to 15, 30, 45, or 60 seconds.

- Some Power On Self Test (POST) errors might be truncated in the Integrated Management Log (IML).

- The output of the RIBCL GET_POST_STATE command shows the output for the HOST_POWER command.

- If the Shared Remote Console feature is not licensed, an error message should be displayed when a user clicks the Share button.

- iLO cannot be configured to propagate the NTP or OA time setting to the host.

- An SSH session is not logged out when AES/3DES is enabled or disabled by using the CLI.

- The iLO CLI and web interface have different length requirements for the FQDN.

- There is no warning message in the CLI when the power mode is set to OS control.

- The Login Security Banner does not work consistently between the iLO web interface and iLO scripts.

- The remote console displays multiple CD-ROM drives with the same drive letter.

- The SSH interface might freeze after multiple back-to-back connections.

- An iLO system with no installed certificates reports that the maximum number of certificates is reached.

- The temperature graph in the iLO web interface shows details for only one sensor when multiple sensors have
the same coordinates.

- The SNTP settings are not displayed in the iLO web interface after a firmware update.

- An error occurs when the iLO firmware is updated by using the CLI.

- The CPU temperature is reported incorrectly.

- An event is not generated when the default language is changed by using scripts or the CLI.

- An error message is not displayed when an incorrect firmware URL is entered.

- The Integrated Management Log (IML) displays an error when a maintenance note is entered.

- An event is not generated when a power-on error occurs.

- The VLAN tag cannot be configured by using the iLO RBSU.

- The iLO firmware date is displayed incorrectly in the iLO RBSU.

- A warning message does not occur when the Local User Accounts setting is changed to Disabled for an iLO system that does not have a configured directory.

- The power-on delay options are inconsistent between the iLO web interface and the CLI.

- The Intelligent Provisioning version is not displayed on the iLO System Information > Firmware page.

- The Enterprise Secure Key Manager (ESKM) certificate is deleted if no certificate name is entered.

- The CLI labels a mismatched power supply with OK status.

- An event is not generated when a language pack update fails.

- An event is not generated when the Power Regulator settings are modified.

- WINDBG with port number 65535 cannot be enabled from the iLO CLI.

- Duplicate IP addresses are not detected.

- iLO 4 1.20 and later does not send ARP before replying to a ping request. This causes iLO 4 to be unreachable to pings from clients with teamed NICs.

- Solaris 10 and 11 cannot be installed by using Virtual Media

- The SNTP time zone offset is incorrectly applied to the time provided by the OA when c-Class blade servers are inserted into the enclosure or are e-fused.

- When the server serial number is updated in the BIOS, the system board FRU data is not updated.

Enhancements

ENHANCEMENTS:

This version adds support for the following features and enhancements:

- iLO Federation Management
NOTE: iLO Federation Management is supported on IPv4 and IPv6 networks on the iLO Dedicated Network Port. It is not supported on iLO Shared Network Port.

- Insight Remote Support Direct Connect configuration is available in iLO 4 1.40 and later.

- iLO 4 1.40 and later supports the HP Enterprise Secure Key Manager ESKM 3.1 and later, which can be used in conjunction with HP Secure Encryption.

- Improved Java Integrated Remote Console (IRC)

- UEFI System Utilities support on the HP ProLiant DL580 Gen8 server.

Firmware CD Supplemental Update / Online ROM Flash Component for VMware ESXi - HP Integrated Lights-Out 4

Version: 1.40 **(Optional)**

Important Note!

- IPv6 network communications - dedicated network connection only
  - Supported Networking Features
    - IPv6 Static Address Assignment
    - IPv6 SLAAC Address Assignment
    - IPv6 Static Route Assignment
    - Integrated Remote Console
    - OA Single Sign-On
    - Web Server
    - SSH Server
    - SNTP Client
    - DDNS Client
    - DHCPv6 Address Assignment
    - DHCPv6 Domain, DNS, and NTP Configuration
    - RIBCL over IPv6
    - SNMP
    - HP-SIM Single Sign-On
    - WinDBG Support
    - CPQLOCFG/HPLOMIG over an IPv6 connection
    - Scriptable Virtual Media
    - CLI/RIBCL Key Import over IPv6
    - iLO Federation
  - Networking Features not supported by IPv6 in this release
    - Shared Network Port Connections
    - Authentication using LDAP and Kerberos over IPv6
    - IPMI
    - NETBIOS-WINS
    - ESKM Support for Storage
    - ERS Support
- There may be times when you run iLO Federation Management that you will receive a "data inconsistency error". Those errors occur when an iLO on your network is not responding correctly refer to the multisystem map page to help troubleshoot that condition.
- iLO does not accept IPv6 multicast global scope configuration.

Fixes

FIXES:

The following issues are resolved in this firmware version:

- Server Auto Power-On might be triggered when iLO is reset through IPMI.

- Firmware updates that use USB Virtual Media might fail due to secure flash image corruption.

- SSH sockets might take 30 seconds to close.

- The GET_OA_INFO command output does not include the OA IPv6 address.

- The iLO 4 SNMP stack might become unresponsive to SNMP requests.

- The file upload section is not displayed on the iLO web interface Firmware page.

- The Integrated Remote Console (IRC) stops working when iLO is busy.

- The .NET Integrated Remote Console (IRC) fails to start in Chrome if a trusted certificate is not installed.

- Kerberos Keytab files cannot be added from the iLO web interface.

- An error occurs if you register for Remote Support with proxy settings, and then you delete the proxy settings.

- Directory settings information is not consistent between the iLO web interface and the scripting interfaces.

- The server shuts down when a user exits the system RBSU during an iLO reset.

- Kerberos Keytab files cannot be added when FIPS mode is enabled.

- A service event is not generated when a hard disk drive fails during boot.

- The Acquire dialog box is displayed when the remote console is started, but there is no active session to acquire.

- The status of a spare drive changes to inactive when the spare drive is in use.

- When the security override switch is enabled, long login names might fail.

- TPM status cannot be viewed by using XML scripts.

- The IPv6 default gateway might be saved as a static default gateway.

- When configured for FIPS mode/AES-DES the key exchange method ‘diffie-hellman group1 sha1’ should not be supported.

- The iLO clock fails to synchronize with NTP when a Primary Time Server is not entered.

- The iLO webserver unexpectedly quits after the NVRAM is cleared.

- The iLO DHCPv6/EBIPA address is not displayed in OA when OA is configured on an IPv6-only network.

- The Backup ROM date is displayed incorrectly on the Diagnostics page in the iLO web interface.

- The IPMI Get Sensor Reading command returns incorrect data for the Inlet Ambient sensor.

- Auto Power-On takes two minutes when the delay is set to 15, 30, 45, or 60 seconds.

- Some Power On Self Test (POST) errors might be truncated in the Integrated Management Log (IML).

- The output of the RIBCL GET_POST_STATE command shows the output for the HOST_POWER command.

- If the Shared Remote Console feature is not licensed, an error message should be displayed when a user clicks the Share button.

- iLO cannot be configured to propagate the NTP or OA time setting to the host.

- An SSH session is not logged out when AES/3DES is enabled or disabled by using the CLI.

- The iLO CLI and web interface have different length requirements for the FQDN.

- There is no warning message in the CLI when the power mode is set to OS control.

- The Login Security Banner does not work consistently between the iLO web interface and iLO scripts.

- The remote console displays multiple CD-ROM drives with the same drive letter.

- The SSH interface might freeze after multiple back-to-back connections.

- An iLO system with no installed certificates reports that the maximum number of certificates is reached.

- The temperature graph in the iLO web interface shows details for only one sensor when multiple sensors have
the same coordinates.

- The SNTP settings are not displayed in the iLO web interface after a firmware update.

- An error occurs when the iLO firmware is updated by using the CLI.

- The CPU temperature is reported incorrectly.

- An event is not generated when the default language is changed by using scripts or the CLI.

- An error message is not displayed when an incorrect firmware URL is entered.

- The Integrated Management Log (IML) displays an error when a maintenance note is entered.

- An event is not generated when a power-on error occurs.

- The VLAN tag cannot be configured by using the iLO RBSU.

- The iLO firmware date is displayed incorrectly in the iLO RBSU.

- A warning message does not occur when the Local User Accounts setting is changed to Disabled for an iLO system that does not have a configured directory.

- The power-on delay options are inconsistent between the iLO web interface and the CLI.

- The Intelligent Provisioning version is not displayed on the iLO System Information > Firmware page.

- The Enterprise Secure Key Manager (ESKM) certificate is deleted if no certificate name is entered.

- The CLI labels a mismatched power supply with OK status.

- An event is not generated when a language pack update fails.

- An event is not generated when the Power Regulator settings are modified.

- WINDBG with port number 65535 cannot be enabled from the iLO CLI.

- Duplicate IP addresses are not detected.

- iLO 4 1.20 and later does not send ARP before replying to a ping request. This causes iLO 4 to be unreachable to pings from clients with teamed NICs.

- Solaris 10 and 11 cannot be installed by using Virtual Media

- The SNTP time zone offset is incorrectly applied to the time provided by the OA when c-Class blade servers are inserted into the enclosure or are e-fused.

- When the server serial number is updated in the BIOS, the system board FRU data is not updated.

Enhancements

ENHANCEMENTS:

This version adds support for the following features and enhancements:

- iLO Federation Management
NOTE: iLO Federation Management is supported on IPv4 and IPv6 networks on the iLO Dedicated Network Port. It is not supported on iLO Shared Network Port.

- Insight Remote Support Direct Connect configuration is available in iLO 4 1.40 and later.

- iLO 4 1.40 and later supports the HP Enterprise Secure Key Manager ESKM 3.1 and later, which can be used in conjunction with HP Secure Encryption.

- Improved Java Integrated Remote Console (IRC)

- UEFI System Utilities support on the HP ProLiant DL580 Gen8 server.

Firmware CD Supplemental Update / Online ROM Flash Component for VMware ESXi - HP Integrated Lights-Out 3

Version: 1.70 **(Optional)**

Prerequisites

Customers running a version of iLO 3 previous to v1.20 must upgrade v1.20 before upgrading to this version. iLO 3 v1.20 may be obtained from the following FTP locations:

Linux: ftp://ftp.hp.com/pub/softlib2/software1/sc-linux-fw-ilo/p1255562964/v64722

Windows: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw-ilo/p901462262/v64721
Win64: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw-ilo/p1728391553/v64720

Enhancements

List your enhancements here.

Online ROM Flash Component for Windows - HP Integrated Lights-Out 2

Version: 2.23 **(Recommended)**

Fixes

- When the iLO DNS name was changed the updated DNS name would not appear in the OA until after a system reset.
- Users were unable to mount a Virtual CD/DVD-ROM in SLES 11 SP3.
- The following message appears when the Java IRC is started: This application will be blocked in a future Java security update because the JAR file manifest does not contain the Permissions attribute. This message will continue to appear when you run Java 7 unless you install an SSL certificate that is signed by a trusted Certification Authority.
- After importing a SSL certificate the iLO 2 webGUI could become slow to respond.

Online ROM Flash Component for Windows - HP Integrated Lights-Out 3

Version: 1.70 **(Optional)**

Prerequisites

Customers running a version of iLO 3 previous to v1.20 must upgrade v1.20 before upgrading to this version. iLO 3 v1.20 may be obtained from the following FTP locations:

Linux: ftp://ftp.hp.com/pub/softlib2/software1/sc-linux-fw-ilo/p1255562964/v64722
Windows: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw-ilo/p901462262/v64721
Win64: ftp://ftp.hp.com/pub/softlib2/software1/sc-windows-fw-ilo/p1728391553/v64720

Enhancements

List your enhancements here.

Online ROM Flash Component for Windows - HP Integrated Lights-Out 4

Version: 1.40 **(Optional)**

Important Note!

- IPv6 network communications - dedicated network connection only
  - Supported Networking Features
    - IPv6 Static Address Assignment
    - IPv6 SLAAC Address Assignment
    - IPv6 Static Route Assignment
    - Integrated Remote Console

        - OA Single Sign-On
        - Web Server
        - SSH Server
        - SNTP Client
        - DDNS Client
        - DHCPv6 Address Assignment
        - DHCPv6 Domain, DNS, and NTP Configuration
        - RIBCL over IPv6
        - SNMP
        - HP-SIM Single Sign-On
        - WinDBG Support
        - CPQLOCFG/HPLOMIG over an IPv6 connection
        - Scriptable Virtual Media
        - CLI/RIBCL Key Import over IPv6
        - iLO Federation
    - Networking Features not supported by IPv6 in this release
        - Shared Network Port Connections
        - Authentication using LDAP and Kerberos over IPv6
        - IPMI
        - NETBIOS-WINS
        - ESKM Support for Storage
        - ERS Support
  - There may be times when you run iLO Federation Management that you will receive a "data inconsistency error". Those errors occur when an iLO on your network is not responding correctly refer to the multisystem map page to help troubleshoot that condition.
  - iLO does not accept IPv6 multicast global scope configuration.

Prerequisites

The addition of IPv6 support for iLO scripting interfaces requires the use of new versions of several iLO utilities. Customers using previous versions of these utilities must upgrade to the new versions:

- HPQLOCFG 1.1 (replaces CPQLOCFG)
- HP Lights-Out XML Scripting Sample 4.3.0 bundle
- HPONCFG 4.3.0
- LOCFG.PL 4.20 (included in the HP Lights-Out XML Scripting Sample 4.3.0 bundle)
- HPLOMIG 4.3.0 (upgrade HPLOMIG before installing this version of iLO 4)

Fixes

FIXES:

The following issues are resolved in this firmware version:

- Server Auto Power-On might be triggered when iLO is reset through IPMI.

- Firmware updates that use USB Virtual Media might fail due to secure flash image corruption.

- SSH sockets might take 30 seconds to close.

- The GET_OA_INFO command output does not include the OA IPv6 address.

- The iLO 4 SNMP stack might become unresponsive to SNMP requests.

- The file upload section is not displayed on the iLO web interface Firmware page.

- The Integrated Remote Console (IRC) stops working when iLO is busy.

- The .NET Integrated Remote Console (IRC) fails to start in Chrome if a trusted certificate is not installed.

- Kerberos Keytab files cannot be added from the iLO web interface.

- An error occurs if you register for Remote Support with proxy settings, and then you delete the proxy settings.

- Directory settings information is not consistent between the iLO web interface and the scripting interfaces.

- The server shuts down when a user exits the system RBSU during an iLO reset.

- Kerberos Keytab files cannot be added when FIPS mode is enabled.

- A service event is not generated when a hard disk drive fails during boot.

- The Acquire dialog box is displayed when the remote console is started, but there is no active session to acquire.

- The status of a spare drive changes to inactive when the spare drive is in use.

- When the security override switch is enabled, long login names might fail.

- TPM status cannot be viewed by using XML scripts.

- The IPv6 default gateway might be saved as a static default gateway.

- When configured for FIPS mode/AES-DES the key exchange method ‘diffie-hellman group1 sha1’ should not be supported.

- The iLO clock fails to synchronize with NTP when a Primary Time Server is not entered.

- The iLO webserver unexpectedly quits after the NVRAM is cleared.

- The iLO DHCPv6/EBIPA address is not displayed in OA when OA is configured on an IPv6-only network.

- The Backup ROM date is displayed incorrectly on the Diagnostics page in the iLO web interface.

- The IPMI Get Sensor Reading command returns incorrect data for the Inlet Ambient sensor.

- Auto Power-On takes two minutes when the delay is set to 15, 30, 45, or 60 seconds.

- Some Power On Self Test (POST) errors might be truncated in the Integrated Management Log (IML).

- The output of the RIBCL GET_POST_STATE command shows the output for the HOST_POWER command.

- If the Shared Remote Console feature is not licensed, an error message should be displayed when a user

clicks the Share button.

- iLO cannot be configured to propagate the NTP or OA time setting to the host.

- An SSH session is not logged out when AES/3DES is enabled or disabled by using the CLI.

- The iLO CLI and web interface have different length requirements for the FQDN.

- There is no warning message in the CLI when the power mode is set to OS control.

- The Login Security Banner does not work consistently between the iLO web interface and iLO scripts.

- The remote console displays multiple CD-ROM drives with the same drive letter.

- The SSH interface might freeze after multiple back-to-back connections.

- An iLO system with no installed certificates reports that the maximum number of certificates is reached.

- The temperature graph in the iLO web interface shows details for only one sensor when multiple sensors have
the same coordinates.

- The SNTP settings are not displayed in the iLO web interface after a firmware update.

- An error occurs when the iLO firmware is updated by using the CLI.

- The CPU temperature is reported incorrectly.

- An event is not generated when the default language is changed by using scripts or the CLI.

- An error message is not displayed when an incorrect firmware URL is entered.

- The Integrated Management Log (IML) displays an error when a maintenance note is entered.

- An event is not generated when a power-on error occurs.

- The VLAN tag cannot be configured by using the iLO RBSU.

- The iLO firmware date is displayed incorrectly in the iLO RBSU.

- A warning message does not occur when the Local User Accounts setting is changed to Disabled for an iLO system that does not have a configured directory.

- The power-on delay options are inconsistent between the iLO web interface and the CLI.

- The Intelligent Provisioning version is not displayed on the iLO System Information > Firmware page.

- The Enterprise Secure Key Manager (ESKM) certificate is deleted if no certificate name is entered.

- The CLI labels a mismatched power supply with OK status.

- An event is not generated when a language pack update fails.

- An event is not generated when the Power Regulator settings are modified.

- WINDBG with port number 65535 cannot be enabled from the iLO CLI.

- Duplicate IP addresses are not detected.

- iLO 4 1.20 and later does not send ARP before replying to a ping request. This causes iLO 4 to be unreachable to pings from clients with teamed NICs.

- Solaris 10 and 11 cannot be installed by using Virtual Media

- The SNTP time zone offset is incorrectly applied to the time provided by the OA when c-Class blade servers are inserted into the enclosure or are e-fused.

- When the server serial number is updated in the BIOS, the system board FRU data is not updated.

Enhancements

ENHANCEMENTS:

This version adds support for the following features and enhancements:

- iLO Federation Management
NOTE: iLO Federation Management is supported on IPv4 and IPv6 networks on the iLO Dedicated Network Port. It is not supported on iLO Shared Network Port.

- Insight Remote Support Direct Connect configuration is available in iLO 4 1.40 and later.

- iLO 4 1.40 and later supports the HP Enterprise Secure Key Manager ESKM 3.1 and later, which can be used in conjunction with HP Secure Encryption.

- Improved Java Integrated Remote Console (IRC)

- UEFI System Utilities support on the HP ProLiant DL580 Gen8 server.

Firmware - Network

Top

HP QLogic P3 Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 1.3.9.7 (D) **(Optional)**

Fixes

This component addresses an application crash during firmware update when all network ports are teamed.

The P3 firmware in this product corrects the reporting of checksum status for packets with TCP checksum errors while running in promiscuous mode.

Supported Devices and Features

This software supports the following HP QLogic P3 network adapters:

- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic P3P Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 4.0.0.15 (D) **(Optional)**

Prerequisites

This package requires that the appropriate driver for your device be installed before the firmware can be updated.

Enhancements

This component provides firmware version 4.14.26. This firmware is part of a combo image file p3p26002.bin (v2.60.02).

Supported Devices and Features

This software package supports the following HP P3P network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP Broadcom Online Firmware Upgrade Utility for Linux x86

Version: 2.10.15 **(Optional)**

Prerequisites

This package requires the *HP Broadcom TG3 Driver for Linux* or the *HP Broadcom 1/10 GbE Multifunction Drivers for Linux* to be installed before firmware can be updated.

Fixes

FCoE/iSCSI:

- A system hang seen during the early phase of storage ROM initialization on some platforms has been addressed.
- The firmware has been updated to use indirect accesses to address a boot failure seen when large Base Address Register (BAR) is enabled in the system BIOS.

Bootcode: ♣

- This image addresses an issue where a 5719 chipset device reports “no firmware running” when

an inbox driver is used.

NCSI:

- This image addresses an issue where a Keyboard, Video and Mouse (KVM) session times out when a power cycle loop is performed for a long duration on a system with a Broadcom 5717/5719 chipset device.

HP Broadcom Online Firmware Upgrade Utility for Linux x86_64

Version: 2.10.15 **(Optional)**

Prerequisites

This package requires the appropriate driver for your adapter be installed before firmware can be updated.

Fixes

FCoE/iSCSI:

- A system hang seen during the early phase of storage ROM initialization on some platforms has been addressed.
- The firmware has been updated to use indirect accesses to address a boot failure seen when large Base Address Register (BAR) is enabled in the system BIOS.

Bootcode: ♣

- This image addresses an issue where a 5719 chipset device reports “no firmware running” when an inbox driver is used.

NCSI:

- This image addresses an issue where a Keyboard, Video and Mouse (KVM) session times out when a power cycle loop is performed for a long duration on a system with a Broadcom 5717/5719 chipset device.

HP Broadcom Online Firmware Upgrade Utility for VMware 5.x

Version: 1.1.10 **(Optional)**

Prerequisites

This package requires the appropriate Broadcom driver for VMware for your device to be installed before firmware can be updated.

Fixes

FCoE/iSCSI:

- A system hang seen during the early phase of storage ROM initialization on some platforms has been addressed.

- The firmware has been updated to use indirect accesses to address a boot failure seen when large Base Address Register (BAR) is enabled in the system BIOS.

Bootcode: ♣

- This image addresses an issue where a 5719 chipset device reports “no firmware running” when an inbox driver is used.

NCSI:

- This image addresses an issue where a Keyboard, Video and Mouse (KVM) session times out when a power cycle loop is performed for a long duration on a system with a Broadcom 5717/5719 chipset device.

HP Broadcom Online Firmware Upgrade Utility for Windows Server 2008

Version: 4.0.0.26 **(Optional)**

Prerequisites

This package requires the appropriate driver for your NIC be installed before firmware can be updated.

Fixes

FCoE/iSCSI:

- A system hang seen during the early phase of storage ROM initialization on some platforms has been addressed.
- The firmware has been updated to use indirect accesses to address a boot failure seen when large Base Address Register (BAR) is enabled in the system BIOS.

Bootcode: ♣

- This image addresses an issue where a 5719 chipset device reports “no firmware running” when an inbox driver is used.

NCSI:

- This image addresses an issue where a Keyboard, Video and Mouse (KVM) session times out when a power cycle loop is performed for a long duration on a system with a Broadcom 5717/5719 chipset device.

HP Broadcom Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 4.0.0.26 **(Optional)**

Prerequisites

This package requires the appropriate driver for your NIC be installed before firmware can be updated.

Fixes

FCoE/iSCSI:

- A system hang seen during the early phase of storage ROM initialization on some platforms has been addressed.
- The firmware has been updated to use indirect accesses to address a boot failure seen when large Base Address Register (BAR) is enabled in the system BIOS.

Bootcode: ♣

- This image addresses an issue where a 5719 chipset device reports “no firmware running” when an inbox driver is used.

NCSI:

- This image addresses an issue where a Keyboard, Video and Mouse (KVM) session times out when a power cycle loop is performed for a long duration on a system with a Broadcom 5717/5719 chipset device.

HP Intel Online Firmware Upgrade Utility for Linux x86

Version: 1.5.17 **(Optional)**

Fixes

This firmware addresses an issue where a Pre-Execution Environment (PXE) boot fails when the Spanning Tree Protocol is enabled on a network switch.

This firmware addresses a system hang seen with Product Development Kit Intel® APITEST with PXE version 1.5.33.

This firmware addresses an issue where the Windows Deployment Services fail.

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter

- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel Online Firmware Upgrade Utility for Linux x86_64

Version: 1.5.17 **(Optional)**

Fixes

This firmware addresses an issue where a Pre-Execution Environment (PXE) boot fails when the Spanning Tree Protocol is enabled on a network switch.

This firmware addresses a system hang seen with Product Development Kit Intel® APITEST with PXE version 1.5.33.

This firmware addresses an issue where the Windows Deployment Services fail.

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter

- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel Online Firmware Upgrade Utility for Windows Server 2008

Version: 4.0.0.10 (B) **(Optional)**

Prerequisites

This package requires the appropriate driver for your NIC be installed before firmware can be updated. Available drivers are:

- HP Intel E1R Driver for Windows Server 2008
- HP Intel ixn/ixt Driver for Windows Server 2008

Fixes

This firmware addresses an issue where a Pre-Execution Environment (PXE) boot fails when the Spanning Tree Protocol is enabled on a network switch.

This firmware addresses a system hang seen with Product Development Kit Intel® APITEST with PXE version 1.5.33.

This firmware addresses an issue where the Windows Deployment Services fail.

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter

- HP Ethernet 10Gb 2-port 562i Adapter

HP Intel Online Firmware Upgrade Utility for Windows Server x64 Editions

Version: 4.0.0.10 (C) **(Optional)**

Prerequisites

This package requires the appropriate driver for your NIC be installed before firmware can be updated.

Fixes

This firmware addresses an issue where a Pre-Execution Environment (PXE) boot fails when the Spanning Tree Protocol is enabled on a network switch.

This firmware addresses a system hang seen with Product Development Kit Intel® APITEST with PXE version 1.5.33.

This firmware addresses an issue where the Windows Deployment Services fail.

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

HP Mellanox Online Firmware Upgrade Utility for Linux i386

Version: 1.1.3 **(Recommended)**

Fixes

Fixed in this version:

- On nc542m BL-c MINBW and MAXBW set through CLP not working

Enhancements

This component now contains firmware version 2.8.0620 for HP NC542m Dual Port Flex-10 10GbE BL-c Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC543i 1-port 4x QDR IB/Flex-10 10Gb Adapter
- HP NC543i 2-port 4x QDR IB/10Gb Adapter

HP Mellanox Online Firmware Upgrade Utility for Linux x86_64

Version: 1.1.3 **(Recommended)**

Fixes

Fixed in this version:

- On nc542m BL-c MINBW and MAXBW set through CLP not working

Enhancements

This component now contains firmware version 2.8.0620 for HP NC542m Dual Port Flex-10 10GbE BL-c Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC543i 1-port 4x QDR IB/Flex-10 10Gb Adapter
- HP NC543i 2-port 4x QDR IB/10Gb Adapter

HP Mellanox Online Firmware Upgrade Utility for Windows Server 2008

Version: 1.0.0.1 **(Recommended)**

Fixes

Fixed in this version:

- On nc542m BL-c MINBW and MAXBW set through CLP not working

Enhancements

This component now contains firmware version 2.8.0620 for HP NC542m Dual Port Flex-10 10GbE BL-c Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC543i 1-port 4x QDR IB/Flex-10 10Gb Adapter
- HP NC543i 2-port 4x QDR IB/10Gb Adapter

HP Mellanox Online Firmware Upgrade Utility for Windows Server 2008 x64 Editions

Version: 1.0.0.1 (A) **(Recommended)**

Fixes

Fixed in this version:

- On nc542m BL-c MINBW and MAXBW set through CLP not working

Enhancements

- Added supoprt for Windows 2012 R2
- This component now contains firmware version 2.8.0620 for HP NC542m Dual Port Flex-10 10GbE BL-c Adapter

Supported Devices and Features

This package supports the following network adapters:

- HP NC542m Dual Port Flex-10 10GbE BL-c Adapter
- HP NC543i 1-port 4x QDR IB/Flex-10 10Gb Adapter
- HP NC543i 2-port 4x QDR IB/10Gb Adapter

HP QLogic P2/P3 Online Firmware Upgrade Utility for Linux x86

Version: 5.4.6 **(Optional)**

Prerequisites

When updating firmware on P3 devices, this package requires *HP QLogic nx_nic Driver for Linux* version >= 4.0.540 and < 4.0.555 for installation. Driver version 4.0.555 must be installed after installing the firmware in this package. Using the P3 firmware in this package without driver version 4.0.555 or later is not a supported configuration.

This package version can be used to upgrade firmware versioned:

- 3.4.336 and later for the NC510C and NC510F network adapters
- 4.0.230 and later for all other supported network adapters

Fixes

The P3 firmware in this product corrects the reporting of checksum status for packets with TCP checksum errors while running in promiscuous mode.

Supported Devices and Features

This software supports the following HP QLogic P2 network adapters:

- HP NC510F PCIe 10 Gigabit Serve Adapter
- HP NC510C PCIe 10 Gigabit Serve Adapter

This software supports the following HP QLogic P3 network adapters:

- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic P2/P3 Online Firmware Upgrade Utility for Linux x86_64

Version: 5.4.6 **(Optional)**

Prerequisites

When updating firmware on P3 devices, this package requires *HP QLogic nx_nic Driver for Linux* version >= 4.0.540 and < 4.0.555 for installation. Driver version 4.0.555 must be installed after installing the firmware in this package. Using the P3 firmware in this package without driver version 4.0.555 or later is not a supported configuration.

This package version can be used to upgrade firmware versioned:

- 3.4.336 and later for the NC510C and NC510F network adapters
- 4.0.230 and later for all other supported network adapters

Fixes

The P3 firmware in this product corrects the reporting of checksum status for packets with TCP checksum errors while running in promiscuous mode.

Supported Devices and Features

This software supports the following HP QLogic P2 network adapters:

- HP NC510F PCIe 10 Gigabit Serve Adapter
- HP NC510C PCIe 10 Gigabit Serve Adapter

This software supports the following HP QLogic P3 network adapters:

- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic P3 Online Firmware Upgrade Utility for Windows Server 2008

Version: 1.3.9.7 (B) **(Optional)**

Fixes

This component addresses an application crash during firmware update when all network ports are teamed.

The P3 firmware in this product corrects the reporting of checksum status for packets with TCP checksum errors while running in promiscuous mode.

Supported Devices and Features

This software supports the following HP QLogic P3 network adapters:

- HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
- HP NC522SFP Dual Port 10GbE Server Adapter
- HP NC375i Integrated Quad Port Multifunction Gigabit Server Adapter
- HP NC375i 1G w/NC524SFP 10G Module
- HP NC375T PCI Express Quad Port Gigabit Server Adapter

HP QLogic P3P Online Firmware Upgrade Utility for Linux x86

Version: 1.5.11 **(Optional)**

Prerequisites

This package requires the *HP QLogic qlcnic Driver for Linux* to be installed before firmware can be updated.

Enhancements

This component provides firmware version 4.14.26. This firmware is part of a combo image file p3p26002.bin (v2.60.02). This image contains signed Unified Extensible Firmware Interface (UEFI) drivers.

Supported Devices and Features

This package supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP QLogic P3P Online Firmware Upgrade Utility for Linux x86_64

Version: 1.5.11 **(Optional)**

Prerequisites

This package requires the *HP QLogic qlcnic Driver for Linux* to be installed before firmware can be updated..

Enhancements

This component provides firmware version 4.14.26. This firmware is part of a combo image file p3p26002.bin (v2.60.02). This image contains signed Unified Extensible Firmware Interface (UEFI) drivers.

Supported Devices and Features

This package supports the following network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP QLogic P3P Online Firmware Upgrade Utility for VMware 5.x

Version: 2.1.6 **(Optional)**

Prerequisites

This package requires the appropriate HP QLogic driver for VMware for your device to be installed before firmware can be updated.

Enhancements

This component provides firmware version 4.14.26. This firmware is part of a combo image file p3p26002.bin (v2.60.02).

Supported Devices and Features

This package supports the following network adapters:

- HP StorageWorks CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Flex-10 Ethernet Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

HP QLogic P3P Online Firmware Upgrade Utility for Windows Server 2008

Version: 4.0.0.15 (C) **(Optional)**

Prerequisites

This package requires the *HP QLogic P3P Multifunction Driver for Windows Server 2008* to be installed before firmware can be updated.

Enhancements

This component provides firmware version 4.14.26. This firmware is part of a combo image file p3p26002.bin (v2.60.02).

Supported Devices and Features

This software package supports the following HP P3P network adapters:

- HP CN1000Q Dual Port Converged Network Adapter
- HP NC523SFP 10Gb 2-port Server Adapter
- HP FlexFabric 10Gb 2-port 526FLR-SFP+ Adapter

Online Firmware Upgrade Utility (ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter: HP Part # 649281-B21

Version: 1.0.1 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.

- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if

it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0280210019] - 2.30.3200

Online Firmware Upgrade Utility (ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter: HP Part # 649281-B21

Version: 1.0.0 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.

- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.

- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0280210019] - 2.30.3200

Online Firmware Upgrade Utility (Linux x86_64) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649282-B21 and HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649283-B21

Version: 1.1.7 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.

- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX

reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below adapter types:

- Rev B2 (PSID: HP_0230220019)
- Rev Cx (PSID: HP_0230240019)
- Rev B2 (PSID: HP_0230220009)
- Rev Cx (PSID: HP_0230240009)

Online Firmware Upgrade Utility (Linux x86_64) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter: HP Part # 649281-B21

Version: 1.1.3 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-

configurable FW.
If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0280210019] - 2.30.3200

Online Firmware Upgrade Utility (Linux x86_64) for HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter: HP Part # 644160-B21 and HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter: HP Part # 644161-B21

Version: 1.1.2 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Fixed FDR firmware payload issue within the smart component.
- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0240230019] - 2.30.3200
- Rev B3 (PSID: HP_0250230018] - 2.30.3200

Online Firmware Upgrade Utility (Linux x86_64) for HP Infiniband QDR/Ethernet 10Gb 2P 544i Adapter (SL4540 and SL4545 only)

Version: 1.1.1 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0280110018] - 2.30.3200

Supported Devices and Features

This package supports the following InfiniBand adapters:

- HP Infiniband QDR/Ethernet 10Gb 2P 544i Adapter (SL4540 and SL4545 only)

Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649282-B21 and HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649283-B21

Version: 1.0.1 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y

You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below adapter types:

- Rev B2 (PSID: HP_0230220019)
- Rev Cx (PSID: HP_0230240019)
- Rev B2 (PSID: HP_0230220009)
- Rev Cx (PSID: HP_0230240009)

Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649282-B21 and HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649283-B21

Version: 1.0.0 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y

You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below adapter types:

- Rev B2 (PSID: HP_0230220019)
- Rev Cx (PSID: HP_0230240019)
- Rev B2 (PSID: HP_0230220009)
- Rev Cx (PSID: HP_0230240009)

Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter: HP Part # 644160-B21 and HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter: HP Part # 644161-B21

Version: 1.0.1 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0240230019] - 2.30.3200

- Rev B3 (PSID: HP_0250230018] - 2.30.3200

Online Firmware Upgrade Utility (VMware ESXi Server) for HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter: HP Part # 644160-B21 and HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter: HP Part # 644161-B21

Version: 1.0.0 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- **Workaround**: Clear the semaphore using MFT command: 'flint -clear_semaphore'
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0240230019] - 2.30.3200
- Rev B3 (PSID: HP_0250230018] - 2.30.3200

Online Firmware Upgrade Utility (Windows x64) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649282-B21 and HP InfiniBand QDR/EN 10Gb Dual Port 544FLR-QSFP Adapter: HP Part # 649283-B21

Version: 1.0.1.1 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
  Workaround: Clear the semaphore using MFT command: flint -clear_semaphore
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock

and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below adapter types:

- Rev B2 (PSID: HP_0230220019)
- Rev Cx (PSID: HP_0230240019)
- Rev B2 (PSID: HP_0230220009)
- Rev Cx (PSID: HP_0230240009)

Online Firmware Upgrade Utility (Windows x64) for HP InfiniBand FDR/EN 10/40Gb Dual Port 544QSFP Adapter: HP Part # 649281-B21

Version: 1.0.0.9 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
  Workaround: Clear the semaphore using MFT command: flint -clear_semaphore
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.

- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0280210019] - 2.30.3200

Online Firmware Upgrade Utility (Windows x64) for HP InfiniBand QDR/EN 10Gb Dual Port 544M Adapter: HP Part # 644160-B21 and HP InfiniBand FDR/EN 10/40Gb Dual Port 544M Adapter: HP Part # 644161-B21

Version: 1.0.1.0 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
  Workaround: Clear the semaphore using MFT command: flint -clear_semaphore
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Fixed FDR firmware payload issue within the smart component.
- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.

- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below adapter types:

- Rev B3 (PSID: HP_0250230018]
- Rev B3 (PSID: HP_0240230019]

Online Firmware Upgrade Utility (Windows x64) for HP Infiniband QDR/Ethernet 10Gb 2P 544i Adapter (SL4540 and SL4545 only)

Version: 1.0.0.8 **(Recommended)**

Important Note!

Known Issues:

- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
  Workaround: Clear the semaphore using MFT command: flint -clear_semaphore
- Although Link and Ping are established using this SFP to RJ45 module, support is not declared for this SFP to RJ45 module, due to effects on link up/down on the adjacent port.
  Workaround: Use other SFP to RJ45 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
  Workaround: Production SL230 should be used for PCIe Gen3 operation.
- Ethernet cards fail to work with mlnx_ofed unless the do_sense is disabled in the INI.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In a back-to-back setup of FDR cards connected with a 0.5m FDR cable, a FDR10 link is established instead of FDR.
- Device managed Flow steering and NCSI cannot be enabled simultaneously.
- When PCIe Gen3 is enabled, temporary correctable errors might occur when changing speed between PCIe Gen1 and PCIe Gen2.
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Auto-Sensing is not supported with 40GbE connections in VPI cards.
- Occasionally, 40GbE link takes longer to establish link when CR4 is used.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- InfiniBand port_rcv_pkts counter presents wrong reporting when LLR is enabled on the port.
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Driver restart required when switching from InfiniBand FDR link with LLR enabled to InfiniBand link w/o LLR (for example: between SwitchX® and GD4036).
- VLAN filter is currently not supported.
- Bloom filter is currently not supported.
- PXE is currently not supported in 40GbE in VPI cards.
- PXE is currently not supported in QSFP to SFP+ hybrid cable.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW.
  If you continue, old FW configurations will be cleared, do you want to continue ? (y/n)[n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] : y

Fixes

Fixes:

- Disabled MLPN in HP MEZZ QDR INI to allow 10GbE link with a 3rd party10GbE switch.
- Enabled WoL on Port2 and disabled WoL on Port1 in ConnectX® HP Argos INI.
- Under certain conditions, SR-IOV guest experienced request timeouts and got stuck.
- A gap (LOS) between training sequences to data transmission causes peer partner to lose lock and fail ETH KR link.
- Management transport was not supported, after PXE driver teardown (unload). Fixed the flow to issue software reset, after the driver was stopped.
- Updated the Revision ID of Node Info and General Info MADs to reflect hardware Rev ID instead of 0.
- PLL calibration were affected by operating point configuration.
- Port error counters were not cleared upon XAUI/SGMII link up.
- Enhanced the receiver SerDes tuning for 10GE, to support specific 10GbE QSFP to SFP+ splitter

cables.
- Fixed a possible access to unmapped resource memory.
- Slow link establishment in NC-SI caused due to slow cable reading in boot.
- Occasionally, a failure occurred in speed when changing to Gen2.
- PXE might halt during teardown.
- InfiniBand loopback was blocked during link negotiation on the same port.
- Fixed process voltage scaling issue.
- Fixed a possible read access to DMA address 0x0.
- Fixed miss cqe issue due to interrupt moderation.
- Fixed a rare cable reading issue upon cable insertion.
- On rare occasions, PXE boot fails due to a firmware issue interfering with the PXE load from the card's flash. Upon failure, the following message is received: “Payload inaccessible - cannot continue”.
- When the same VLAN is configured for both ports and one port goes down, the second port may suffer a momentarily packet drop.
- When changing link connection between 40Gbe to 10Gbe, the port might stay down until the next driver restart.
- The device may enter an L1 power state before completing an incoming configuration request if it arrived before the power state change ack for Root Complex.
- During repeated cable reinsertion, the link may raise in a lower speed than expected.
- Bad configuration of ib_protocol when setting the port to InfiniBand after exchanging it from Ethernet/RoCE on the same port.
- On rare occasions, an NMI error is received when stopping PXE boot in the middle of an action on HP servers.
- The system was unresponsive when a race between PCI configuration cycles handling in hardware and firmware occurred.
- On rare occasions, an NMI event occurred on HP ALOM while trying to using the PXE CLI.
- IPv6 packets dropped while RoCE was enabled.
- On rare link reset occasions, an HCA to SwitchX link may remain in ARM state after SwitchX reboot, and not reach the Active state.

Enhancements

Includes firmware version 2.30.3200 for the below card:

- Rev B3 (PSID: HP_0280110018] - 2.30.3200

Firmware - Power Management

Top

Online ROM Flash for Linux - Power Management Controller (HP ProLiant DL580 Gen8 Servers)

Version: 4.1 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

Power Management Controller (HP ProLiant DL580 Gen8 Servers)

Release Version:

4.1

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

None

Online ROM Flash for Linux - Power Management Controller (HP ProLiant Gen8 Servers)

Version: 3.3 **(Recommended)**

Important Note!

Important Notes:

If a server has a Dynamic Power Cap enabled, the server's performance may be significantly affected during the duration of the flash update of the Power Management Controller Firmware. To prevent the impact to performance, the Dynamic Power Cap can be disabled prior to the flash update process.

Deliverable Name:

Power Management Controller (HP ProLiant Gen8 Servers)

Release Version:

3.3

Last Recommended or Critical Revision:

3.3

Previous Revision:

3.2

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

Known Issues:

None

Fixes

Important Notes:

If a server has a Dynamic Power Cap enabled, the server's performance may be significantly affected during the duration of the flash update of the Power Management Controller Firmware. To prevent the impact to performance, the Dynamic Power Cap can be disabled prior to the flash update process.

Firmware Dependencies:

None

Problems Fixed:

This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

Known Issues:

None

Online ROM Flash for Windows - Power Management Controller (HP ProLiant DL580 Gen8 Servers)

Version: 4.1 **(Recommended)**

Important Note!

Important Notes:

None

Deliverable Name:

Power Management Controller (HP ProLiant DL580 Gen8 Servers)

Release Version:

4.1

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Prerequisites

The "HP ProLiant iLO 3/4 Channel Interface Driver for Windows" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:
"The software is not supported for installation on this system.
You must install the iLO Channel Interface driver to use this component."

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

None

Online ROM Flash for Windows - Power Management Controller (HP ProLiant Gen8 Servers)

Version: 3.3 **(Recommended)**

Important Note!

Important Notes:

If a server has a Dynamic Power Cap enabled, the server's performance may be significantly affected during the duration of the flash update of the Power Management Controller Firmware. To prevent the impact to performance, the Dynamic Power Cap can be disabled prior to the flash update process.

Deliverable Name:

Power Management Controller (HP ProLiant Gen8 Servers)

Release Version:

3.3

Last Recommended or Critical Revision:

3.3

Previous Revision:

3.2

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

Known Issues:

None

Prerequisites

The "HP ProLiant iLO 3/4 Channel Interface Driver for Windows" must be installed and running before using this flash component. If the driver is not running you will receive the following error message:
"The software is not supported for installation on this system.
You must install the iLO Channel Interface driver to use this component."

Fixes

Important Notes:

If a server has a Dynamic Power Cap enabled, the server's performance may be significantly affected during the duration of the flash update of the Power Management Controller Firmware. To prevent the impact to performance, the Dynamic Power Cap can be disabled prior to the flash update process.

Firmware Dependencies:

None

Problems Fixed:

This firmware update addresses the issue described in Customer Advisory c03885073. For a description of the issue and a list of affected platforms, please consult this advisory at http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?locale=en_US&objectID=c03885073.

Known Issues:

None

Firmware - SAS Storage Disk

Top

Online ROM Flash Component for VMware ESXi - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives

Version: HPDG (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDG do not need to update to HPDG(C).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives

Version: HPD7 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD7 do not need to update to HPD7(C).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD7 prevents this condition from occurring.
- During a replacement drive rebuild process, a RAID Controller may create false errors. These false errors were improperly counted as true errors by the drive and resulted in a “SMART Imminent Failure” or “Predictive Failure” message. Firmware version HPD7 prevents the drive from counting these false errors and eliminates the unwarranted SMART "Imminent Failure” or “Predictive Failure” message.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EH0146FBQDC and EH0300FBQDD drives

Version: HPD3 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD3 do not need to update to HPD3(C).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- During a replacement drive rebuild process, a RAID Controller may create false errors. These false errors were improperly counted as true errors by the drive and resulted in a “SMART Imminent Failure” or “Predictive Failure” message. Firmware version HPD3 prevents the drive from counting these false errors and eliminates the unwarranted SMART "Imminent Failure” or “Predictive Failure” message.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB1000FAMYU and MB2000FAMYV Drives

Version: HPD7 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD7 do not need to update to HPD7(C).**

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command

sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MM0500FBFVQ and MM1000FBFVR Drives

Version: HPD8 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD8 do not need to update to HPD8(C).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives

Version: HPDJ (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDJ do not need to update to HPDJ(C).**

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EF0300FARMU, EF0450FARMV, EF0600FARNA drive

Version: HPD6 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(C).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives

Version: HPDB (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDB do not need to update to HPDB(C).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives

Version: HPDA (D) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems**

running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.
- **Customers who already installed firmware version HPDA do not need to update to HPDA(D).**

Fixes

Firmware Dependency:

- **Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.**

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EG0300FBDSP, EG0450FBDSQ, and EG0600FBDSR drives

Version: HPD6 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(C).**

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ Drives

Version: HPD9 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(B).**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives

Version: HPD5 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

- **Customers who already installed firmware version HPD5 do not need to update to HPD5(B).**

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EG1200FCVBQ Drives

Version: HPD6 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(B).**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EH0072FARUA and EH0146FARUB drives

Version: HPD9 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(C).**

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EH0072FARWC and EH0146FARWD Drives

Version: HPDD (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDD do not need to update to HPDD(C).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EH0146FCBVB and EH0300FCBVC drives

Version: HPD4 (C) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD4 do not need to update to HPD4(C).**

Enhancements

Enhancements/New Features:

- This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.
- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - EO0200FBRVV, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD drives

Version: HPD9 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(C).**

Fixes

Problems Fixed:

- In previous firmware revisions when the solid state drive was issued a Report Support Operation

Code (RSOC) command (A3h) and the reporting options field was set to 001 , the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB1000FBZPL and MB2000FBZPN drives

Version: HPD3 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD3 do not need to update to HPD3(C).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives

Version: HPD5 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD5 do not need to update to HPD5(B).**

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000FBUCL and MB3000FBUCN drives

Version: HPDA (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDA do not need to update to HPDA(B).**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000FCQPF and MB3000FBNWV Drives

Version: HPD7 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD7 do not need to update to HPD7(B).**

Fixes

Problems Fixed:

- This firmware prevents a condition in which data failed to be written to media after the host issued a hard reset in a lab stress test environment with write cache enabled.

Enhancements

Enhancements/New Features:

- This firmware provides performance improvements for large transfer sequential write burst workloads.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MM0500FAMYT Drives

Version: HPD6 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(C).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MO0200FCTRN, MO0400FCTRP, and MO0800FCTRQ drives

Version: HPD2 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD2 do not need to update to HPD2(C).**

Fixes

Problems Fixed:

- Resolved an intermittent issue where the drive would not report the progress of the sanitize command in return sense data.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for Windows - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives

Version: HPDG (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDG do not need to update to HPDG(B).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives

Version: HPDJ (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDJ do not need to update to HPDJ(B).**

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EF0300FARMU, EF0450FARMV, EF0600FARNA drives

Version: HPD6 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(B).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives

Version: HPDB (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDB do not need to update to HPDB(B).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives

Version: HPDA (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDA do not need to update to HPDA(B).**

Prerequisites

- **Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.**

Fixes

Firmware Dependency:

- **Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.**

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Online ROM Flash Component for Windows - EG0300FBDSP, EG0450FBDSQ, and EG0600FBDSR drives

Version: HPD6 (B) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(B).**

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives

Version: HPD7 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD7 do not need to update to HPD7(B).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD7 prevents this condition from occurring.
- During a replacement drive rebuild process, a RAID Controller may create false errors. These false errors were improperly counted as true errors by the drive and resulted in a “SMART Imminent Failure” or “Predictive Failure” message. Firmware version HPD7 prevents the drive from counting these false errors and eliminates the unwarranted SMART "Imminent Failure” or “Predictive Failure” message.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ Drives

Version: HPD9 **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline**

firmware flashing of drives is supported for these configurations.

- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Online ROM Flash Component for Windows - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives

Version: HPD5 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Online ROM Flash Component for Windows - EG1200FCVBQ Drives

Version: HPD6 **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Online ROM Flash Component for Windows - EH0072FARUA and EH0146FARUB drives

Version: HPD9 (B) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(B).**

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EH0072FARWC and EH0146FARWD Drives

Version: HPDD (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require**

an offline update using the SPP and HP SUM.
- **Customers who already installed firmware version HPDD do not need to update to HPDD(B).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EH0146FBQDC and EH0300FBQDD drives

Version: HPD3 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD3 do not need to update to HPD3(B).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- During a replacement drive rebuild process, a RAID Controller may create false errors. These false errors were improperly counted as true errors by the drive and resulted in a “SMART Imminent Failure” or “Predictive Failure” message. Firmware version HPD3 prevents the drive from counting these false errors and eliminates the unwarranted SMART "Imminent Failure” or “Predictive Failure” message.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - EH0146FCBVB and EH0300FCBVC drives

Version: HPD4 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Enhancements

Enhancements/New Features:

- This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.

Online ROM Flash Component for Windows - EO0200FBRVV, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD drives

Version: HPD9 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(B).**

Fixes

Problems Fixed:

- In previous firmware revisions when the solid state drive was issued a Report Support Operation

Code (RSOC) command (A3h) and the reporting options field was set to 001 , the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MB1000FAMYU and MB2000FAMYV Drives

Version: HPD7 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD7 do not need to update to HPD7(B).**

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MB1000FBZPL and MB2000FBZPN drives

Version: HPD3 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD3 do not need to update to HPD3(B).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives

Version: HPD5 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame

instead of three for a link reset to mitigate potential speed negotiation issues.

Online ROM Flash Component for Windows - MB2000FBUCL and MB3000FBUCN drives

Version: HPDA **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Online ROM Flash Component for Windows - MB2000FCQPF and MB3000FBNWV Drives

Version: HPD7 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- This firmware prevents a condition in which data failed to be written to media after the host issued a hard reset in a lab stress test environment with write cache enabled.

Enhancements

Enhancements/New Features:

- This firmware provides performance improvements for large transfer sequential write burst

workloads.

Online ROM Flash Component for Windows - MM0500FAMYT Drives

Version: HPD6 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(B).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MM0500FBFVQ and MM1000FBFVR Drives

Version: HPD8 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require**

an offline update using the SPP and HP SUM.

- **Customers who already installed firmware version HPD8 do not need to update to HPD8(B).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MO0200FCTRN, MO0400FCTRP, and MO0800FCTRQ drives

Version: HPD2 **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- Resolved an intermittent issue where the drive would not report the progress of the sanitize command in return sense data.

Supplemental Update / Online ROM Flash Component for Linux - DG0146FARVU, DG0300FARVV, DG0146BAMYQ, DG0300BAMYR, EG0146FAWJC, and EG0300FAWJD Drives

Version: HPDG (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDG do not need to update to HPDG(C).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EG0300FBDBR, EG0450FBDBT and EG0600FBDBU Drives

Version: HPDA (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDA do not need to update to HPDA(C).**

Prerequisites

- **Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.**

Fixes

Firmware Dependency:

- **Minimum firmware required - HPD7. HPDA drive firmware will fail when downgrading to versions below HPD7.**

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EG0300FBDSP, EG0450FBDSQ, and EG0600FBDSR drives

Version: HPD6 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(C).**

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EG0300FBLSE, EG0450FBLSF, EG0600FBLSH, and EG0900FBLSK drives

Version: HPD7 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD7 do not need to update to HPD7(C).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD7 prevents this condition from occurring.
- During a replacement drive rebuild process, a RAID Controller may create false errors. These false errors were improperly counted as true errors by the drive and resulted in a “SMART Imminent Failure” or “Predictive Failure” message. Firmware version HPD7 prevents the drive from counting these false errors and eliminates the unwarranted SMART "Imminent Failure” or “Predictive Failure” message.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EG0300FBVFL, EG0450FBVFM, EG0600FBVFP, and EG0900FBVFQ drives

Version: HPD9 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(B).**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EG1200FCVBQ drives

Version: HPD6 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(B).**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EH0072FARUA and EH0146FARUB drives

Version: HPD9 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(C).**

Fixes

Problems Fixed:

- This firmware reduces the possibility of the controller and drive not properly negotiating link signaling, resulting in the controller not being able to identify a drive attached to a particular port/slot during system boot up. This firmware improves signal quality between the drive and the controller.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EH0146FBQDC and EH0300FBQDD drives

Version: HPD3 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**

- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD3 do not need to update to HPD3(C).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- During a replacement drive rebuild process, a RAID Controller may create false errors. These false errors were improperly counted as true errors by the drive and resulted in a “SMART Imminent Failure” or “Predictive Failure” message. Firmware version HPD3 prevents the drive from counting these false errors and eliminates the unwarranted SMART "Imminent Failure” or “Predictive Failure” message.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EH0146FCBVB and EH0300FCBVC drives

Version: HPD4 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD4 do not need to update to HPD4(B).**

Enhancements

Enhancements/New Features:

- This firmware revision reduces the possibility of Uncorrectable Read Errors due to poor writes to the media.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EO0200FBRVV, MO0200FBRWB, EO0400FBRWA, MO0400FBRWC, and MO0800FBRWD drives

Version: HPD9 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD9 do not need to update to HPD9(C).**

Fixes

Problems Fixed:

- In previous firmware revisions when the solid state drive was issued a Report Support Operation Code (RSOC) command (A3h) and the reporting options field was set to 001 , the drive incorrectly responded with 05/24/00 indicating that the RSOC command was not supported. The error was logged in the system log files. The drive should have communicated non-support using the Command Data Parameter (CDP) format. The firmware now complies with the RSOC industry standard specification.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB1000FAMYU and MB2000FAMYV Drives

Version: HPD7 (D) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

- **Customers who already installed firmware version HPD7 do not need to update to HPD7(D).**

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- HPD7 (B) resolves an issue with offline flashing where the component would time out during the upgrade process.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB1000FBZPL and MB2000FBZPN drives

Version: HPD3 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD3 do not need to update to HPD3(C).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MM0500FAMYT Drives

Version: HPD6 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD6 do not need to update to HPD6(C).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD6 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MM0500FBFVQ and MM1000FBFVR Drives

Version: HPD8 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems**

running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.

- **Customers who already installed firmware version HPD8 do not need to update to HPD8(C).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPD8 prevents this condition from occurring.
- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MO0200FCTRN, MO0400FCTRP, and MO0800FCTRQ drives

Version: HPD2 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD2 do not need to update to HPD2(C).**

Fixes

Problems Fixed:

- Resolved an intermittent issue where the drive would not report the progress of the sanitize command in return sense data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - DH0072FAQRD, DH0146FAQRE, EH0146FAWJB, and EH0072FAWJA Drives

Version: HPDJ (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDJ do not need to update to HPDJ(C).**

Fixes

Problem Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EF0300FARMU, EF0450FARMV, and EF0600FARNA drives

Version: HPD6 (D) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

- **Customers who already installed firmware version HPD6 do not need to update to HPD6(D).**

Fixes

Problems Fixed:

- This firmware prevents a rare condition that may occur during a WRITE SAME command sequence that may result in incorrect data being written to the hard drive. The WRITE SAME command may be used during RAID ARRAY parity initialization.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- **HPG6(C)** resolved a component installation issue where the drive model, EF0600FARNA, was being detected, but would fail to flash.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EF0300FATFD, EF0450FATFE, and EF0600FATFF Drives

Version: HPDB (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDB do not need to update to HPDB(C).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EG0300FCVBF, EG0450FCVBH, EG0600FCVBK, and EG0900FCVBL Drives

Version: HPD5 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD5 do not need to update to HPD5(B).**

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - EH0072FARWC and EH0146FARWD Drives

Version: HPDD (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDD do not need to update to HPDD(C).**

Fixes

Problems Fixed:

- This firmware corrects a possible condition in which stale data might be written to the disk. This results in unexpected data being returned in subsequent requests. This data issue has been duplicated in laboratory firmware stress tests.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB1000FCWDE, MB2000FCWDF, MB3000FCWDH, and MB4000FCWDK drives

Version: HPD5 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD5 do not need to update to HPD5(B).**

Fixes

Problems Fixed:

- This firmware contains a change which causes the drive hardware to send one Identify frame instead of three for a link reset to mitigate potential speed negotiation issues.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000FBUCL and MB3000FBUCN drives

Version: HPDA (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPDA do not need to update to HPDA(B).**

Fixes

Problems Fixed:

- This firmware improves background scans for media robustness, and also corrects a laboratory induced rare condition that could result in the disk not being updated with the latest cache data.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000FCQPF and MB3000FBNWV Drives

Version: HPD7 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPD7 do not need to update to HPD7(B).**

Fixes

Problems Fixed:

- This firmware prevents a condition in which data failed to be written to media after the host issued a hard reset in a lab stress test environment with write cache enabled.

Enhancements

Enhancements/New Features:

- This firmware provides performance improvements for large transfer sequential write burst

workloads.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

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Online ROM Flash Component for ESXi - MB3000EBKAB Drives

Version: HPG6 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG6 do not need to update to HPG6(C).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.
- This firmware corrects “command timeouts” and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives

Version: HPGD (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline**

firmware flashing of drives is supported for these configurations.
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGD do not need to update to HPGD(C).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives

Version: HPG3 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG3 do not need to update to HPG3(B).**

Fixes

Problems Fixed:

- A correction to address failure to activate LED Activity which occurs during system boot.

Enhancements

Enhancements/New Features:

- Frequency of Background Media Scans changed to reduce drive workload.
- Improvement to allow drives to better handle sudden shock occurrences.

- New features to enhance telemetry of drive related issues and workload statistics during failure analysis.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives

Version: HPGD (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGD do not need to update to HPGD(B).**

Fixes

Problems Fixed:

- A correction to address failure to activate LED Activity which occurs during system boot.

Enhancements

Enhancements/New Features:

- Frequency of Background Media Scans changed to reduce drive workload.
- Improvement to allow drives to better handle sudden shock occurrences.
- New features to enhance telemetry of drive related issues and workload statistics during failure analysis.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000EAZNL Drives

Version: HPG4 (C) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

- **Customers who already installed firmware version HPG4 do not need to update to HPG4(C).**

Fixes

Problems Fixed:

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000EBUCF and MB3000EBUCH Drives

Version: HPG4 (C) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG4 do not need to update to HPG4(C).**

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives

Version: HPG2 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG2 do not need to update to HPG2(B).**

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Improvements in random read and write performance.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000GBUPB and MB3000GBUCK drives

Version: HPG4 (C) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG4 do not need to update to HPG4(C).**

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000GCQXQ and MB3000GBKAC Drives

Version: HPGJ (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGJ do not need to update to HPGJ(C).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives

Version: HPG2 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

- **Customers who already installed firmware version HPG2 do not need to update to HPG2(B).**

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Improvements in random read and write performance.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for VMware ESXi - MM0500GBKAK and MM1000GBKAL Drives

Version: HPGC (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGC do not need to update to HPGC(C).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Online ROM Flash Component for Windows - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives

Version: HPGD (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGD do not need to update to HPGD(B).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives

Version: HPG3 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- A correction to address failure to activate LED Activity which occurs during system boot.

Enhancements

Enhancements/New Features:

- Frequency of Background Media Scans changed to reduce drive workload.
- Improvement to allow drives to better handle sudden shock occurrences.
- New features to enhance telemetry of drive related issues and workload statistics during failure analysis.

Online ROM Flash Component for Windows - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives

Version: HPGD **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- A correction to address failure to activate LED Activity which occurs during system boot.

Enhancements

Enhancements/New Features:

- Frequency of Background Media Scans changed to reduce drive workload.
- Improvement to allow drives to better handle sudden shock occurrences.
- New features to enhance telemetry of drive related issues and workload statistics during failure analysis.

Online ROM Flash Component for Windows - MB2000EAZNL Drives

Version: HPG4 **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.

Online ROM Flash Component for Windows - MB2000EBUCF and MB3000EBUCH Drives

Version: HPG4 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Online ROM Flash Component for Windows - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives

Version: HPG2 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage

applications (e.g., very long periods of small range seeks).
- Improvements in random read and write performance.

Online ROM Flash Component for Windows - MB2000GBUPB and MB3000GBUCK Drives

Version: HPG4 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Online ROM Flash Component for Windows - MB2000GCQXQ and MB3000GBKAC Drives

Version: HPGJ (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGJ do not need to update to HPGJ(B).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives

Version: HPG2 **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Improvements in random read and write performance.

Online ROM Flash Component for Windows - MB3000EBKAB Drives

Version: HPG6 (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG6 do not need to update to HPG6(B).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.
- This firmware corrects "command timeouts" and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - MM0500GBKAK and MM1000GBKAL Drives

Version: HPGC (B) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGC do not need to update to HPGC(B).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - VB0160EAVEQ and VB0160CBCDE Drives

Version: HPG9 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG9 do not need to update to HPG9(B).**

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Online ROM Flash Component for Windows - VB0250EAVER Drives

Version: HPG9 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG9 do not need to update to HPG9(B).**

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

Enhancements

Enhancements/New Features:

- The firmware component installer can now install the drive firmware successfully when the new HP ProLiant Smart Array HPCISSS3 Controller Driver (**hpcisss3.sys**) is running on the system being updated.

Supplemental Update / Online ROM Flash Component for ESXi - VB0160EAVEQ and VB0160CBCDE Drives

Version: HPG9 (C) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG9 do not need to update to HPG9(C).**

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for ESXi - VB0250EAVER Drives

Version: HPG9 (C) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG9 do not need to update to HPG9(C).**

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

Enhancements

Enhancements/New Features:

- Added support for VMware vSphere 5.5.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000EAZNL drives

Version: HPG4 (B) **(Optional)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG4 do not need to update to HPG4(B).**

Fixes

Problems Fixed:

- This firmware contains general maintenance release and code improvement items. Drives built with or upgraded to hard drive firmware version HPG4 should not be downgraded to an earlier version of firmware due to hard drive manufacturing process changes.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000EBUCF and MB3000EBUCH Drives

Version: HPG4 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG4 do not need to update to HPG4(B).**

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000GBUPB and MB3000GBUCK drives

Version: HPG4 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

- **Customers who already installed firmware version HPG4 do not need to update to HPG4(B).**

Fixes

Problems Fixed:

- The system did not recognize some drives after a power-cycle. This is due to the drive initialization process being interrupted by a reset, causing the drive to take more time than allotted to report commands.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB0500GCEHF, MB1000GCEHH, and MB2000GCEHK Drives

Version: HPGD (E) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGD do not need to update to HPGD(E).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGD prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.
- **HPGD (D)** resolved a component installation issue where the drive model, MB2000GCEHK, was being detected, but would fail to flash.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB1000ECWCQ, MB2000ECWCR, MB3000ECWCT, and MB4000ECWCU Drives

Version: HPG3 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG3 do not need to update to HPG3(B).**

Fixes

Problems Fixed:

- A correction to address failure to activate LED Activity which occurs during system boot.

Enhancements

Enhancements/New Features:

- Frequency of Background Media Scans changed to reduce drive workload.
- Improvement to allow drives to better handle sudden shock occurrences.
- New features to enhance telemetry of drive related issues and workload statistics during failure analysis.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB1000GCWCV, MB2000GCWDA, MB3000GCWDB, and MB4000GCWDC Drives

Version: HPGD (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**

- **Customers who already installed firmware version HPGD do not need to update to HPGD(B).**

Fixes

Problems Fixed:

- A correction to address failure to activate LED Activity which occurs during system boot.

Enhancements

Enhancements/New Features:

- Frequency of Background Media Scans changed to reduce drive workload.
- Improvement to allow drives to better handle sudden shock occurrences.
- New features to enhance telemetry of drive related issues and workload statistics during failure analysis.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000ECVJF, MB3000ECVJH, and MB4000ECVJK Drives

Version: HPG2 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG2 do not need to update to HPG2(B).**

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Improvements in random read and write performance.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000GCQXQ and MB3000GBKAC Drives

Version: HPGJ (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGJ do not need to update to HPGJ(C).**

Fixes

Problem Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGJ prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB2000GCVBR, MB3000GCVBT, and MB4000GCVBU Drives

Version: HPG2 (B) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG2 do not need to update to HPG2(B).**

Enhancements

Enhancements/New Features:

- This firmware improves reliability by modifying the pivot bearing grease wear leveling algorithm, which if not implemented, could result in an increased drive failure rate for specific usage applications (e.g., very long periods of small range seeks).
- Improvements in random read and write performance.
- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MB3000EBKAB Drives

Version: HPG6 (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG6 do not need to update to HPG6(C).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPG6 prevents this condition from occurring.
- This firmware corrects “command timeouts” and seek errors which can result in poor performance or a Device Fault condition, the latter of which will result in the drive failed by the Controller or sub system.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - MM0500GBKAK and MM1000GBKAL Drives

Version: HPGC (C) **(Critical)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPGC do not need to update to HPGC(C).**

Fixes

Problems Fixed:

- After long term use of the HDD, a rare condition might occur following a power cycle where the drive heads may land on areas of the disk containing data, which could potentially cause data loss or mechanical damage. Firmware version HPGC prevents this condition from occurring.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - VB0160EAVEQ and VB0160CBCDE Drives

Version: HPG9 (C) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG9 do not need to update to HPG9(C).**

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.

- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Supplemental Update / Online ROM Flash Component for Linux - VB0250EAVER Drives

Version: HPG9 (C) **(Recommended)**

Important Note!

- **Online firmware flashing of drives attached to an HP Smart Array controller running in Zero Memory (ZM) mode or an HP ProLiant host bus adapter (HBA) is NOT supported. Only offline firmware flashing of drives is supported for these configurations.**
- **Online drive firmware update available for Smart Array Controllers configured in systems running supported Linux, Microsoft Windows, and VMware environments. All other OSes would require an offline update using the SPP and HP SUM.**
- **Customers who already installed firmware version HPG9 do not need to update to HPG9(C).**

Fixes

Problems Fixed:

- This firmware corrects the possibility of the drive becoming unresponsive and requiring a power cycle following a soft system reboot. This behavior appears as if the drive is no longer attached to the system following the system soft reboot. It is most often observed during Operating System Installation but can occur following any system soft reboot.
- Flashing drives connected behind an HP H2xx Host Bus Adapter (HBA) no longer causes an interrupt resulting in drive firmware installation failures.

Enhancements

Enhancements/New Features:

- Added support for UEFI (Universal Extensible Firmware Interface) based servers.

Firmware - Storage Controller

Top

Firmware CD Supplemental Update / Online ROM Flash Component for Linux - Smart Array P600

Version: 2.04 (A) **(Recommended)**

Important Note!

Fixes

- Fixed an issue where incorrect data may be returned for a SCSI MODE SENSE command sent to a SATA drive.
- Fixed an issue where Sequential reads on SATA drives in an HP StorageWorks MSA60 may lead to drive failures.

HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Linux

Version: 0149 (B) **(Recommended)**

Important Note!

IMPORTANT:Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

NOTE: In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk enclosures are automatically updated during the firmware installation process.

NOTE: All firmware flash progress messages are logged to /var/cpq/Component.log for inband and /var/cpq/MSA2000_ip.log for network flash.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

NOTE: In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk enclosures are automatically updated during the firmware installation process.

NOTE: All firmware flash progress messages are logged to /var/cpq/Component.log for inband and /var/cpq/MSA2000_ip.log for network flash.

Fixes

TBD

Supported Devices and Features

The D2600/ D2700 Enclosure can be attached to any of the following HP Smart Array storage controllers:

- HP Smart Array P212 Controller
- HP Smart Array P222 Controller
- HP Smart Array P411 Controller
- HP Smart Array P421 Controller
- HP Smart Array P431 Controller
- HP Smart Array P812 Controller
- HP Smart Array P822 Controller
- HP H221 Host Bus Adapter
- HP H222 Host Bus Adapter

Alternativey, it can also be connected behind a HP MSA 2040/P2000 arrays.

HP D2600/D2700 6Gb SAS Disk Enclosure ROM Flash Component for Windows

Version: 0149 (B) **(Recommended)**

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

NOTE: In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk enclosures are automatically updated during the firmware installation process.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: When disk enclosures are cascaded, I/O module A of one enclosure is connected to I/O module A of the subsequent enclosure. During a firmware update, I/O module A in the cascaded disk enclosures is automatically updated.

NOTE: In dual-domain configurations, both I/O modules of the target disk enclosure and cascaded disk

enclosures are automatically updated during the firmware installation process.

Fixes

The following items was fixed in firmware 0149

- Fixed an issue found during manufacturing testing where, after hot plugging an I/O module, the enclosure fan speed did not return to the dual I/O module configuration fan speed.

Enhancements

- Added P431 Smart Array Support.

Supported Devices and Features

The D2600/ D2700 Enclosure can be attached to any of the following HP Smart Array storage controllers:

- HP Smart Array P212 Controller
- HP Smart Array P222 Controller
- HP Smart Array P411 Controller
- HP Smart Array P421 Controller
- HP Smart Array P431 Controller
- HP Smart Array P812 Controller
- HP Smart Array P822 Controller
- HP H221 Host Bus Adapter
- HP H222 Host Bus Adapter

Alternatively, it can also be connected behind a HP MSA 2040/P2000 arrays.

Offline Firmware Supplemental Update - HP SAS Expander Card

Version: 2.10 (B) **(Recommended)**

Prerequisites

A minimum FW version 3.66 is required on your HP Smart Array controller when updating to 2.10 FW on your HP SAS Expander Card.

Fixes

Firmware Dependency:

A minimum FW version 3.66 is required on your HP Smart Array controller when updating to 2.10 FW on your HP SAS Expander Card.

Problems Fixed:

- On rare occasions during a power-up sequence, the HP SAS Expander, would be unresponsive. When the HP SAS Expander was unresponsive, the attached HP Smart Array P410 or P410i Controller was not allowed to discover drives that were attached.

Enhancements

Enhancements/New Features:

- Resolved an issue where the Smart Component would hang during hardware discovery when an unknown device was present.

Online ROM Flash Component for Linux - HP Host Bus Adapters H220, H221, H222, H210i and H220i

Version: 15.10.05.00 **(Recommended)**

Fixes

Problems Fixed:

- Addresses a SAS discovery error that could occur during POST when the HP H221 or H222 Host Bus Adapter controllers are connected to an external JBOD.

Online ROM Flash Component for VMware ESXi - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812

Version: 6.40 (B) **(Recommended)**

Important Note!

- Customers who already installed firmware version 6.40 do not need to update to 6.40 (B).

Important Notes:

- Reference Customer Advisory c03793656 - Windows Server 2012 - HP ProLiant Server May Blue Screen if Configured With an HP Smart Array Controller and the Windows Server 2012 HPCISSS2.SYS Driver Version 62.26.0.64

Fixes

Problems Fixed in version 6.40(B):

- Fixed an installation issue where version 6.40 of the Online Smart Array firmware smart components for the Smart Array P410i Controller would in some cases update the SAS expander in the HP D2200sb Storage Blade with incorrect firmware causing the Smart Array P410i Controller to be unable to communicate with the hard drives installed in the HP D2200sb Storage Blade. Reference Customer Advisory c03964262 for additional important information about this issue.

Problems Fixed in version 6.40:

- False POST 1705 messages were being posted on the HP BL465c G7 or HP BL685c G7 Blade systems that used HP Smart Array P410i controller firmware version 5.76 or greater. The POST was indicateding a bad Super-Cap, which in turn disabled write caching.

- On rare occasions the controller would become unresponsive during POST.
- On intermittent occasions, SATA spare drives in a JBOD were being marked as hot removed and then rediscovered.
- Customers could not invoke ORCA via command line interface, by pressing the escape key-strokes “Esc+6” or "F6" or “Esc+8” or "F8" via the BIOS Serial Console.

Note: Version 6.40 is no longer available for download from HP Support Center, but the following fixes are also provided in version 6.40(B).

Enhancements

Enhancements/New Features:

- Allow Windows Server 2012 drivers to utilize command addressing above the lower 4GB memory region when requested by the storage driver.
- **Version 6.40(B)** added support for VMware vSphere 5.5.

Online ROM Flash Component for VMware ESXi - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822

Version: 5.22 **(Recommended)**

Fixes

Problems Fixed:

- A rare issue that caused system fans to intermittently rev to maximum speed under certain heavy IO loads
- The inability to create maximum supported size SmartCache
- The logging of an invalid Smart Array controller failure following a kdump or kexec
- The loss of redundant paths following an update of the HP D2600/D2700 firmware
- Issues that prevented Smart Path from being enabled in certain scenarios
- Several issues that could lead to cache being disabled

Enhancements

Enhancements/New Features:

Added support for the following features:

- 512e hard drives
- SSD Over-provision Optimization (OPO)
- Additional rebuild priorities

Online ROM Flash Component for VMware ESXi - Smart Array P230i, P430, P431, P731m, P830i, and P830

Version: 1.50 **(Recommended)**

Fixes

Problems Fixed:

- An intermittent issue that can result in the system fans going to maximum speed during certain heavy IO loads.
- An issue which prevented the configuration of a maximum size HP SmartCache.
- The logging of an invalid Smart Array controller failure following a kdump or kexec.
- Loss of redundant paths following an update of HP D2600/D2700 firmware.
- An issue that prevented HP SSD SmartPath from being enabled in certain scenarios.
- An issue that could lead to the controller's read/write cache being disabled in certain scenarios.
- An issue that prevented the spare drive Online LED from blinking if one data drive is failed during a RAID migration.

Enhancements

Enhancements/New Features:

Added support for following new features:

- HP Secure Encryption.
- New 4GiB Controller cache module option.
- UEFI (Universal Extensible Firmware Interface).
- SSD Over-provision Optimization (OPO).
- 512e (Advanced Format) hard drives.
- Additional rebuild priorities.

Additionally, the following enhancements were made:

- Made changes to improve performance of low queue depth workloads.
- Added multi-drive RAID-0 sequential write performance enhancements.
- Increased SAS phy error monitoring capabilities of the controller.

Online ROM Flash Component for VMware ESXi – HP D6000 Disk Enclosure

Version: 2.54 **(Recommended)**

Fixes

Problems Fixed:

- Improved signal integrity settings to reduce the occurrence of PHY DWORD errors when using HP D6000 Disk Enclosures.
- Resolves a Smart Array controller 0xAB lockup observed during SAS switch reboots in HP BladeSystem configurations.
- Limits the SATA drive link rate to 3G, SAS drive link rates are still 6G.
- Resolves SAS link errors that may occur with cascaded HP D6000 disk enclosures (limited support for cascading).

Online ROM Flash Component for VMware ESXi – HP Gen8 Server Backplane Expander Firmware for HP Smart Array Controllers and HP HBA Controllers

Version: 3.30 **(Recommended)**

Important Note!

- Online backplane expander firmware update available for Smart Array Controllers configured in systems running supported Linux, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
- Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

Online ROM Flash Component for Windows - HP 512MB Flash Backed Write Cache for B-Series Smart Array

Version: 0.44 (B) **(Optional)**

Important Note!

- Online firmware update available for systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version 0.44 do not need to update to 0.44 (B).

Fixes

Problems Fixed in version 0.44(B):

- Resolved an issue where the Smart Component would hang during hardware discovery when an unknown device was present.

Problems Fixed in version 0.44:

- Prior to version 0.44, a cache module charging circuit failure would result in an incorrect POST 1705 error indicating the super-cap should be replaced. This firmware now detects cache module charging circuit failures and displays a new POST 1813 error that correctly instructs the user to replace the cache module.

Online ROM Flash Component for Windows - HP D6000 Disk Enclosure

Version: 2.54 **(Recommended)**

Fixes

Problems Fixed:

- Improved signal integrity settings to reduce the occurrence of PHY DWORD errors when using HP D6000 Disk Enclosures.
- Resolves a Smart Array controller 0xAB lockup observed during SAS switch reboots in HP BladeSystem configurations.
- Limits the SATA drive link rate to 3G, SAS drive link rates are still 6G.
- Resolves SAS link errors that may occur with cascaded HP D6000 disk enclosures (limited support for cascading).

Online ROM Flash Component for Windows - HP Gen8 Server Backplane Expander Firmware for HP Smart Array Controllers and HP HBA Controllers

Version: 3.30 **(Recommended)**

Important Note!

- Online backplane expander firmware update available for Smart Array Controllers configured in systems running supported Linux, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
- Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

Online ROM Flash Component for Windows - HP Host Bus Adapters H220, H221, H222, H210i and H220i

Version: 15.10.05.00 **(Recommended)**

Fixes

Problems Fixed:

- Addresses a SAS discovery error that could occur during POST when the HP H221 or H222 Host Bus Adapter controllers are connected to an external JBOD.

Online ROM Flash Component for Windows - HP Smart Array B320i RAID controller

Version: 15.10.05.00 **(Recommended)**

Fixes

Problems Fixed:

The following issues are resolved in this version of the firmware:

- Resolves the I/O errors and/or inability to access solid state drives (SSD) on systems using the HP Smart Array B320i RAID controller and certain SSDs.

Online ROM Flash Component for Windows - Smart Array E200 and E200i

Version: 1.86 (C) **(Critical)**

Important Note!

Customers who already installed firmware version 1.86 do not need to update to 1.86(C).

Fixes

Problems Fixed:

- Fixed an issue where logical drives were not being detected during POST or reboot on the HP Smart Array E200i controller with firmware version 1.80, 1.82 or 1.84.
- Fixed an issue that caused the component to hang during installation under a Japanese Language version of the OS.
- **FW version 1.86(C)** - Fixed an issue where a decimal conversion was not being interpreted correctly when installing the component under certain regional settings in Windows. This would cause the component installation to end with a return code 3 (already up to date) and a force install would be required to successfully update the FW.

Online ROM Flash Component for Windows - Smart Array E500

Version: 7.24 (B) **(Recommended)**

Important Note!

Customers who already installed firmware version 7.24 do not need to update to 7.24(B).

Prerequisites

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.
- **FW version 7.24(B)** - Fixed an issue where a decimal conversion was not being interpreted correctly when installing the component under certain regional settings in Windows. This would cause the component installation to end with a return code 3 (already up to date) and a force install would be required to successfully update the FW.

Online ROM Flash Component for Windows - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812

Version: 6.40 (B) **(Recommended)**

Important Note!

- Customers who already installed firmware version 6.40 do not need to update to 6.40 (B).

Important Notes:

- Reference Customer Advisory c03793656 - Windows Server 2012 - HP ProLiant Server May Blue Screen if Configured With an HP Smart Array Controller and the Windows Server 2012 HPCISSS2.SYS Driver Version 62.26.0.64

Fixes

Problems Fixed in version 6.40(B):

- Fixed an installation issue where version 6.40 of the Online Smart Array firmware smart components for the Smart Array P410i Controller would in some cases update the SAS expander in the HP D2200sb Storage Blade with incorrect firmware causing the Smart Array P410i Controller to be unable to communicate with the hard drives installed in the HP D2200sb Storage Blade. Reference Customer Advisory c03964262 for additional important information about this issue.

Problems Fixed in version 6.40:

- False POST 1705 messages were being posted on the HP BL465c G7 or HP BL685c G7 Blade systems that used HP Smart Array P410i controller firmware version 5.76 or greater. The POST was indicateding a bad Super-Cap, which in turn disabled write caching.

- On rare occasions the controller would become unresponsive during POST.
- On intermittent occasions, SATA spare drives in a JBOD were being marked as hot removed and then rediscovered.
- Customers could not invoke ORCA via command line interface, by pressing the escape key-strokes “Esc+6” or "F6" or “Esc+8” or "F8" via the BIOS Serial Console.

Note: Version 6.40 is no longer available for download from HP Support Center, but the following fixes are also provided in version 6.40(B).

Enhancements

Enhancements/New Features:

- Allow Windows Server 2012 drivers to utilize command addressing above the lower 4GB memory region when requested by the storage driver.

Online ROM Flash Component for Windows - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822

Version: 5.22 **(Recommended)**

Fixes

Problems Fixed:

- A rare issue that caused system fans to intermittently rev to maximum speed under certain heavy IO loads
- The inability to create maximum supported size SmartCache
- The logging of an invalid Smart Array controller failure following a kdump or kexec
- The loss of redundant paths following an update of the HP D2600/D2700 firmware
- Issues that prevented Smart Path from being enabled in certain scenarios
- Several issues that could lead to cache being disabled

Enhancements

Enhancements/New Features:

Added support for the following features:

- 512e hard drives
- SSD Over-provision Optimization (OPO)
- Additional rebuild priorities

Online ROM Flash Component for Windows - Smart Array P230i, P430, P431, P731m, P830i, and P830

Version: 1.50 **(Recommended)**

Fixes

Problems Fixed:

- An intermittent issue that can result in the system fans going to maximum speed during certain heavy IO loads.
- An issue which prevented the configuration of a maximum size HP SmartCache.
- The logging of an invalid Smart Array controller failure following a kdump or kexec.
- Loss of redundant paths following an update of HP D2600/D2700 firmware.
- An issue that prevented HP SSD SmartPath from being enabled in certain scenarios.
- An issue that could lead to the controller's read/write cache being disabled in certain scenarios.
- An issue that prevented the spare drive Online LED from blinking if one data drive is failed during a RAID migration.

Enhancements

Enhancements/New Features:

Added support for following new features:

- HP Secure Encryption.
- New 4GiB Controller cache module option.
- UEFI (Universal Extensible Firmware Interface).
- SSD Over-provision Optimization (OPO).
- 512e (Advanced Format) hard drives.
- Additional rebuild priorities.

Additionally, the following enhancements were made:

- Made changes to improve performance of low queue depth workloads.
- Added multi-drive RAID-0 sequential write performance enhancements.
- Increased SAS phy error monitoring capabilities of the controller.

Online ROM Flash Component for Windows - Smart Array P400 and P400i

Version: 7.24 (B) **(Recommended)**

Important Note!

Customers who already installed firmware version 7.24 do not need to update to 7.24(B).

Prerequisites

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to

updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.
- **FW version 7.24(B)** - Fixed an issue where a decimal conversion was not being interpreted correctly when installing the component under certain regional settings in Windows. This would cause the component installation to end with a return code 3 (already up to date) and a force install would be required to successfully update the FW.

Online ROM Flash Component for Windows - Smart Array P600

Version: 2.04 (B) **(Recommended)**

Important Note!

If you have previously updated to version 2.04, another update is not needed. The changes for 2.04(B) did not affect FW functionality.

HP recommends for remote deployment of this package that you obtain the most recent version of the Firmware Maintenance CD and follow these steps:

- Place the Firmware Maintenance CD on a USB key using the USB Key Creator Utility.
- Place the firmware to be updated in the directory, /compaq/swpackages on the USB key.
- Run Autorun from _autorun\autorun_win.exe on the Firmware Maintenance CD from the USB key on a system
- Select the Firmware Update tab
- Click on the Install Firmware link to launch the HP Smart Update Manager
- Follow the GUI to install the firmware on remote servers

Fixes

Important Notes:

HP recommends for remote deployment of this package that you obtain the most recent version of the Firmware Maintenance CD and follow these steps:

- Place the Firmware Maintenance CD on a USB key using the USB Key Creator Utility.
- Place the firmware to be updated in the directory, /compaq/swpackages on the USB key.
- Run Autorun from _autorun\autorun_win.exe on the Firmware Maintenance CD from the USB key on a system
- Select the Firmware Update tab
- Click on the Install Firmware link to launch the HP Smart Update Manager
- Follow the GUI to install the firmware on remote servers

Problems Fixed:

- Fixed an issue where incorrect data may be returned for a SCSI MODE SENSE command sent to a SATA drive.
- Fixed an issue where Sequential reads on SATA drives in an HP StorageWorks MSA60 may lead to drive failures.

Enhancements

Enhancements/New Features:

- Updated the component flashing engine.

Online ROM Flash Component for Windows - Smart Array P700m

Version: 7.24 (B) **(Recommended)**

Important Note!

Customers who already installed firmware version 7.24 do not need to update to 7.24(B).

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.
- **FW version 7.24(B)** - Fixed an issue where a decimal conversion was not being interpreted correctly when installing the component under certain regional settings in Windows. This would cause the component installation to end with a return code 3 (already up to date) and a force install would be required to successfully update the FW.

Online ROM Flash Component for Windows - Smart Array P800

Version: 7.24 (B) **(Recommended)**

Important Note!

Customers who already installed firmware version 7.24 do not need to update to 7.24(B).

Prerequisites

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.
- **FW version 7.24(B)** - Fixed an issue where a decimal conversion was not being interpreted correctly when installing the component under certain regional settings in Windows. This would cause the component installation to end with a return code 3 (already up to date) and a force install would be required to successfully update the FW.

Supplemental Update / Online ROM Flash Component for Linux - HP 512MB Flash Backed Write Cache for B-Series Smart Array

Version: 0.44 (B) **(Optional)**

Important Note!

- Online firmware update available for systems running supported Linux and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.
- Customers who already installed firmware version 0.44 do not need to update to 0.44 (B).

Fixes

Problems Fixed in version 0.44(B):

- Resolved an issue where the Smart Component would hang during hardware discovery when an unknown device was present.

Problems Fixed in version 0.44:

- Prior to version 0.44, a cache module charging circuit failure would result in an incorrect POST 1705 error indicating the super-cap should be replaced. This firmware now detects cache module

charging circuit failures and displays a new POST 1813 error that correctly instructs the user to replace the cache module.

Supplemental Update / Online ROM Flash Component for Linux - HP Smart Array B320i RAID controller

Version: 15.10.05.00 **(Recommended)**

Fixes

Problems Fixed:

The following issues are resolved in this version of the firmware:

- Resolves the I/O errors and/or inability to access solid state drives (SSD) on systems using the HP Smart Array B320i RAID controller and certain SSDs.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array E200 and E200i

Version: 1.86 (B) **(Critical)**

Prerequisites

For optimal performance, driver version 2.4.48-12 or higher is strongly recommended with this firmware release.

Fixes

Problems Fixed:

- Fixed an issue where logical drives were not being detected during POST or reboot on the HP Smart Array E200i controller with firmware version 1.80, 1.82 or 1.84.

Enhancements

Enhancements/New Features:

- Added support for SUSE Linux Enterprise Server 11 SP2.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array E500

Version: 7.24 **(Recommended)**

Important Note!

When running VMware ESX/ESXi, only offline updates are supported using the HP Smart Update Manager on the Firmware Maintenance CD.

Prerequisites

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P212, P410, P410i, P411, P711m, P712m, and P812

Version: 6.40 (B) **(Recommended)**

Important Note!

- Customers who already installed firmware version 6.40 do not need to update to 6.40 (B).

Important Notes:

- Reference Customer Advisory c03793656 - Windows Server 2012 - HP ProLiant Server May Blue Screen if Configured With an HP Smart Array Controller and the Windows Server 2012 HPCISSS2.SYS Driver Version 62.26.0.64

Fixes

Problems Fixed in version 6.40(B):

- Fixed an installation issue where version 6.40 of the Online Smart Array firmware smart components for the Smart Array P410i Controller would in some cases update the SAS expander in the HP D2200sb Storage Blade with incorrect firmware causing the Smart Array P410i Controller to be unable to communicate with the hard drives installed in the HP D2200sb Storage Blade. Reference Customer Advisory c03964262 for additional important information about this issue.

Problems Fixed in version 6.40:

- False POST 1705 messages were being posted on the HP BL465c G7 or HP BL685c G7 Blade systems that used HP Smart Array P410i controller firmware version 5.76 or greater. The POST was indicateding a bad Super-Cap, which in turn disabled write caching.
- On rare occasions the controller would become unresponsive during POST.
- On intermittent occasions, SATA spare drives in a JBOD were being marked as hot removed and then rediscovered.
- Customers could not invoke ORCA via command line interface, by pressing the escape key-strokes “Esc+6” or "F6" or “Esc+8” or "F8" via the BIOS Serial Console.

Note: Version 6.40 is no longer available for download from HP Support Center, but the following fixes are also provided in version 6.40(B).

Enhancements

Enhancements/New Features:

- Allow Windows Server 2012 drivers to utilize command addressing above the lower 4GB memory region when requested by the storage driver.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822

Version: 5.22 **(Recommended)**

Fixes

Problems Fixed:

- A rare issue that caused system fans to intermittently rev to maximum speed under certain heavy IO loads
- The inability to create maximum supported size SmartCache
- The logging of an invalid Smart Array controller failure following a kdump or kexec
- The loss of redundant paths following an update of the HP D2600/D2700 firmware
- Issues that prevented Smart Path from being enabled in certain scenarios
- Several issues that could lead to cache being disabled

Enhancements

Enhancements/New Features:

Added support for the following features:

- 512e hard drives
- SSD Over-provision Optimization (OPO)
- Additional rebuild priorities

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P230i, P430, P431, P731m, P830i, and P830

Version: 1.50 **(Recommended)**

Fixes

Problems Fixed:

- An intermittent issue that can result in the system fans going to maximum speed during certain heavy IO loads.
- An issue which prevented the configuration of a maximum size HP SmartCache.
- The logging of an invalid Smart Array controller failure following a kdump or kexec.
- Loss of redundant paths following an update of HP D2600/D2700 firmware.
- An issue that prevented HP SSD SmartPath from being enabled in certain scenarios.
- An issue that could lead to the controller's read/write cache being disabled in certain scenarios.
- An issue that prevented the spare drive Online LED from blinking if one data drive is failed during a RAID migration.

Enhancements

Enhancements/New Features:

Added support for following new features:

- HP Secure Encryption.
- New 4GiB Controller cache module option.
- UEFI (Universal Extensible Firmware Interface).
- SSD Over-provision Optimization (OPO).
- 512e (Advanced Format) hard drives.
- Additional rebuild priorities.

Additionally, the following enhancements were made:

- Made changes to improve performance of low queue depth workloads.
- Added multi-drive RAID-0 sequential write performance enhancements.
- Increased SAS phy error monitoring capabilities of the controller.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P400 and P400i

Version: 7.24 **(Recommended)**

Important Note!

When running VMware ESX/ESXi, only offline updates are supported using the HP Smart Update Manager on the Firmware Maintenance CD.

Prerequisites

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure

sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P700m

Version: 7.24 **(Recommended)**

Important Note!

When running VMware ESX/ESXi, only offline updates are supported using the HP Smart Update Manager on the Firmware Maintenance CD.

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.

Supplemental Update / Online ROM Flash Component for Linux - Smart Array P800

Version: 7.24 **(Recommended)**

Important Note!

When running VMware ESX/ESXi, only offline updates are supported using the HP Smart Update Manager on the Firmware Maintenance CD.

Prerequisites

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality

Fixes

Firmware Dependency:

- Updating the HP DL360G5 System ROM to revision P58 3/9/08 or higher is required in addition to updating to this HP Smart Array firmware revision for the modified shutdown sequence to ensure sufficient time for HDD head parking of internal HDDs.
- Updating the HP MSA 60 and/or MSA 70 firmware version to 2.16 or higher is required to enable dual domain functionality.

Problems Fixed:

- Resolved an issue where the server's system event log would fill with Event ID 129 warnings and the Smart Array controller would become unresponsive.

Supplemental Update / Online ROM Flash Component for Linux – HP D6000 Disk Enclosure

Version: 2.54 **(Recommended)**

Fixes

Problems Fixed:

- Improved signal integrity settings to reduce the occurrence of PHY DWORD errors when using HP D6000 Disk Enclosures.
- Resolves a Smart Array controller 0xAB lockup observed during SAS switch reboots in HP BladeSystem configurations.
- Limits the SATA drive link rate to 3G, SAS drive link rates are still 6G.
- Resolves SAS link errors that may occur with cascaded HP D6000 disk enclosures (limited support for cascading).

Supplemental Update / Online ROM Flash Component for Linux – HP Gen8 Server Backplane Expander Firmware for HP Smart Array Controllers and HP HBA Controllers

Version: 3.30 **(Recommended)**

Important Note!

- Online backplane expander firmware update available for Smart Array Controllers configured in systems running supported Linux, VMware ESXi, and Microsoft Windows environments. All other OSes would require an offline update using the SPP and HP SUM.

Fixes

Problems Fixed:

- Fixed an issue with the SAS connector element which reported invalid connector type/physical link for disabled PHYs.
- Fixed the Logical Link Rate because the Rate was not set properly when PHY is disabled.

Firmware - Storage Fibre Channel

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HP Firmware Flash for Brocade Fibre Channel Host Bus Adapters - Linux (x86)

Version: 2013.08.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Prerequisites

The HP supplied Brocade driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba. Select your product and then select the Software and Drivers page to find the required driver and enablement kit. The driver and enablement kit are also available on the HP Service Pack for Proliant (SPP) version 2013.09.0 which is available at www.hp.com/go/spp/download.

- Linux FC Driver Kit for HP Brocade HBAs and mezzanine HBAs, version 3.2.1.0
- HP Fibre Channel Enablement Kit for Linux, HP-FC-Brocade-Enablement-Kit-2.0.0.0-1.i386.rpm

Note that the driver must be installed before the enablement kit.

Enhancements

Boot bios updated to version 3.2.1.0 to synchronize with HP's Brocade 3.2.1.0 driver.

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter

- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Firmware Flash for Brocade Fibre Channel Host Bus Adapters - Linux (x86_64)

Version: 2013.08.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Prerequisites

The HP supplied Brocade driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba. Select your product and then select the Software and Drivers page to find the required driver and enablement kit. The driver and enablement kit are also available on the HP Service Pack for Proliant (SPP) version 2013.09.0 which is available at www.hp.com/go/spp/download.

- Linux FC Driver Kit for HP Brocade HBAs and mezzanine HBAs, version 3.2.1.0
- HP Fibre Channel Enablement Kit for Linux, HP-FC-Brocade-Enablement-Kit-2.0.0.0-1.x86_64.rpm

Note that the driver must be installed before the enablement kit.

Enhancements

Boot bios updated to version 3.2.1.0 to synchronize with HP's Brocade 3.2.1.0 driver.

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Firmware Flash for Brocade Fibre Channel Host Bus Adapters - VMWare

Version: 2013.08.01 **(Recommended)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Enhancements

Initial version. Contains boot bios version, 3.2.1.0

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters - Linux (x86)

Version: 2014.01.01 **(Optional)**

Prerequisites

Note: This component will flash the CN1000E and NC550SFP products only if the minimum firmware version, 4.1.360.15, is installed.

The HP supplied Emulex driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba and www.hp.com/go/cna. Select your product and then select the Software and Drivers page to find the required driver and enablement kit. The driver and enablement kit are also available on the HP Service Pack for Proliant (SPP) version 2014.02.0 which is available at www.hp.com/go/spp/download.

- Linux FC Driver Kit for HP Branded Emulex FC HBAs and mezz cards, version 8.3.7.39, for RedHat 6 and Novell SUSE 11
- Linux FC Driver Kit for HP Branded Emulex FC HBAs and mezz cards, version 8.2.2.33, for RedHat 5
- HP Fibre Channel Enablement Kit for Linux, HP-CNA-FC-Emulex_Enablement-Kit, version 6.4.19.2

Note that the driver must be installed before the enablement kit.

The HP supplied NIC driver must be installed prior to this firmware component if you want to update the firmware for the CNA. Use the appropriate driver included in the HP Support Pack for ProLiant 2014.02.0, which is available at www.hp.com/go/spp/download.

- HP Emulex 10Gbe Driver for Linux, version 4.9.311.1

Environment must be running the syslog daemon for the flash engine to run

Environment must have 32-bit netlink library (libnl.so) installed for component to be able to discover Emulex HBAs/CNAs

Fixes

Boot Image (BIOS)

4Gb & 8Gb Standup - 5.20a6 (2.12a14 BIOS)

- Resolved boot issues seen on some OEM platforms, where the boot sequence consists of x86 XROM initialization, EFI, then x86 runtime code is called
- Resolved the "unable to boot using a non LUN 0 with AutoScan" issue.

4Gb & 8Gb Mezzanine - 6.10a14 (3.30a1 BIOS)

- The LPe1205 adapter WWPN was missing in the Emulex configuration utility
- Resolved the issue where Boot From SAN was occasionally failing.
- Added support to bypass configuring the PNP Boot Table in a multi-path situation

Firmware

8Gb Standup & Mezzanine - 2.01a12

- The adapter stopped responding during link bounce.
- Corrected a link initialization error in the mezzanine card.
- Corrected an error in the initialization of DMA operation.
- Fixed an issue with memory access (cache).

16Gb Standup & Mezzanine - 1.1.62.0

- Resolved an issue where a reset in the middle of an adapter firmware download corrupts the card.
- Allows installing and booting from an MSA2040 array configured in PT-PT direct mode at 16G speed.

CNA - 4.9.311.20

- Resolved an issue that might result in link up/down when using ETHTOOL_OPTS.
- Corrected an issue with traffic through a switch resulting in a lockup until downlink is disabled.
- Resolved an issue of not discovering the iSCSI boot target when port 1 is configured as primary boot option through DHCP.

Enhancements

Added support for Red Hat Enterprise 5 update 10

Boot Image (BIOS)

4Gb & 8Gb Standup - 5.20a6 (2.12a14 BIOS)

- Converted stand up x86 ROM 8Gb Boot image to be PCI 3.0 FW compliant
- Added support for some newer targets that were not being seen in the target Scan because they were not reporting back as DISK devices.

- Added code to check for duplicate paths using a Device Inquiry command and do not add a duplicate entry to the BBS(Boot block sector) table
- EDD 3.0 is enabled by default

Firmware

8Gb Standup & Mezzanine - 2.01a12

- Added support for disabling out-of-order frame handling.
- Added support for 4G loopback tests.

16Gb Standup & Mezzanine - 1.1.62.0

- Initial support the HP LPe1605 16Gb FC mezzanine card

CNA - 4.9.311.20

- Added support for OCBB (Option Card Black Box – Active Health).
- Added support for VC 4.10.
- EDD 3.0 is enabled by default.
- Incorporates signed UEFI 2.3.1 compatible drivers to support Secure Boot.
- Adds support for multi-path Windows install to RAW disks.

Contains:

CNA firmware 4.9.311.20

16 Gb HBA/Mezz universal boot 1.1.62.0

8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X6
8 Gb HBA/Mezz firmware 2.01a12
8 Gb HBA boot image 5.20a6 (2.12a14 BIOS)
8 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)

4 Gb HBA/Mezz firmware 2.82x4
4 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)
4 Gb HBA boot image 5.20a6 (2.12a14 BIOS)

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
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- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
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- HP CN1100E Dual Port Converged Network Adapter

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- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
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- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz

HP Firmware Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters - Linux (x86_64)

Version: 2014.01.01 **(Optional)**

Prerequisites

Note: This component will flash the CN1000E and NC550SFP products only if the minimum firmware version, 4.1.360.15, is installed.

The HP supplied Emulex driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba and www.hp.com/go/cna. Select your product and then select the Software and Drivers page to find the required driver and enablement kit. The driver and enablement kit are also available on the HP Service Pack for Proliant (SPP) version 2014.02.0 which is available at www.hp.com/go/spp/download.

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- Linux FC Driver Kit for HP Branded Emulex FC HBAs and mezz cards, version 8.2.2.33, for RedHat 5
- HP Fibre Channel Enablement Kit for Linux, HP-CNA-FC-Emulex_Enablement-Kit, version 6.4.19.2

Note that the driver must be installed before the enablement kit.

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Environment must be running the syslog daemon for the flash engine to run

Environment must have 32-bit netlink library (libnl.so) installed for component to be able to discover Emulex HBAs/CNAs

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- Resolved boot issues seen on some OEM platforms, where the boot sequence consists of x86 XROM initialization, EFI, then x86 runtime code is called
- Resolved the "unable to boot using a non LUN 0 with AutoScan" issue.

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- The LPe1205 adapter WWPN was missing in the Emulex configuration utility
- Resolved the issue where Boot From SAN was occasionally failing.
- Added support to bypass configuring the PNP Boot Table in a multi-path situation

Firmware

8Gb Standup & Mezzanine - 2.01a12

- The adapter stopped responding during link bounce.
- Corrected a link initialization error in the mezzanine card.
- Corrected an error in the initialization of DMA operation.
- Fixed an issue with memory access (cache).

16Gb Standup & Mezzanine - 1.1.62.0

- Resolved an issue where a reset in the middle of an adapter firmware download corrupts the card.
- Allows installing and booting from an MSA2040 array configured in PT-PT direct mode at 16G speed.

CNA - 4.9.311.20

- Resolved an issue that might result in link up/down when using ETHTOOL_OPTS.
- Corrected an issue with traffic through a switch resulting in a lockup until downlink is disabled.
- Resolved an issue of not discovering the iSCSI boot target when port 1 is configured as primary boot option through DHCP.

Enhancements

Added support for Red Hat Enterprise 6 update 5

Boot Image (BIOS)

4Gb & 8Gb Standup - 5.20a6 (2.12a14 BIOS)

- Converted stand up x86 ROM 8Gb Boot image to be PCI 3.0 FW compliant
- Added support for some newer targets that were not being seen in the target Scan because they were not reporting back as DISK devices.
- Added code to check for duplicate paths using a Device Inquiry command and do not add a duplicate entry to the BBS(Boot block sector) table
- EDD 3.0 is enabled by default

Firmware

8Gb Standup & Mezzanine - 2.01a12

- Added support for disabling out-of-order frame handling.
- Added support for 4G loopback tests.

16Gb Standup & Mezzanine - 1.1.62.0

- Initial support the HP LPe1605 16Gb FC mezzanine card

CNA - 4.9.311.20

- Added support for OCBB (Option Card Black Box – Active Health).
- Added support for VC 4.10.
- EDD 3.0 is enabled by default.
- Incorporates signed UEFI 2.3.1 compatible drivers to support Secure Boot.
- Adds support for multi-path Windows install to RAW disks.

Contains:

CNA firmware 4.9.311.20

16 Gb HBA/Mezz universal boot 1.1.62.0

8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X6
8 Gb HBA/Mezz firmware 2.01a12
8 Gb HBA boot image 5.20a6 (2.12a14 BIOS)
8 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)

4 Gb HBA/Mezz firmware 2.82x4
4 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)
4 Gb HBA boot image 5.20a6 (2.12a14 BIOS)

Supported Devices and Features

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- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
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- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC550SFP Dual Port 10GbE Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz

HP Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86)

Version: 2014.02.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

The HP supplied QLogic driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba or use the appropriate driver included in the HP Support Pack for ProLiant 2014.02.0, which is available at www.hp.com/go/spp/download:

- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs version 8.04.00.12.5.6-k2, for Red Hat 5
- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs version 8.04.00.12.11.1-k2, for Novell SUSE 11
- HP Fibre Channel Enablement Kit for Linux version 2.0.0.0-4, for QLogic

Enhancements

- Added UEFI driver for 8 Gb and 16 Gb products (except QMH2572).

  This component contains:

- 4 Gb HBA/Mezz
  - Package 2.03AF
  - Firmware 5.03.15
  - BIOS 3.13
- 8 Gb HBA/Mezz
  - Package 3.60A2
  - Firmware 5.09.00
  - BIOS 3.13
  - UEFI 6.23
- 16 Gb HBA/Mezz
  - Package 3.90.01
  - Firmware 6.07.02
  - BIOS 3.21
  - UEFI 6.20
- QMH2572 8 Gb FC Mezz
  - Package 2.59AF
  - Firmware 5.06.04
  - BIOS 3.13

Supported Devices and Features

This firmware supports the following HP adapters:

- HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA
- HP StorageWorks FC1243 4Gb PCI-X 2.0 Dual Channel HBA
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb PCIe Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

HP Firmware Flash for QLogic Fibre Channel Host Bus Adapters - Linux (x86_64)

Version: 2014.02.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

The HP supplied QLogic driver and enablement kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba or use the appropriate driver included in the HP Support Pack for ProLiant 2014.02.0, which is available at www.hp.com/go/spp/download:

- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs version 8.04.00.12.5.6-k2, for Red Hat 5
- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs version 8.04.00.12.06.0_k2, for Red Hat 6
- Linux FCoE/FC Driver Kit for HP Qlogic CNAs, HBAs and mezzanine HBAs version 8.04.00.12.11.1-k2, for Novell SUSE 11
- HP Fibre Channel Enablement Kit for Linux version 2.0.0.0-4, for QLogic

Enhancements

- Added UEFI driver for 8 Gb and 16 Gb products (except QMH2572).

This component contains:

- 4 Gb HBA/Mezz
  - Package 2.03AF
  - Firmware 5.03.15
  - BIOS 3.13
- 8 Gb HBA/Mezz
  - Package 3.60A2
  - Firmware 5.09.00
  - BIOS 3.13
  - UEFI 6.23
- 16 Gb HBA/Mezz
  - Package 3.90.01
  - Firmware 6.07.02
  - BIOS 3.21
  - UEFI 6.20
- QMH2572 8 Gb FC Mezz
  - Package 2.59AF
  - Firmware 5.06.04
  - BIOS 3.13

Supported Devices and Features

This firmware supports the following HP adapters:

- HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA
- HP StorageWorks FC1243 4Gb PCI-X 2.0 Dual Channel HBA
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

HP Firmware Online Flash for Brocade Fibre Channel Host Bus Adapters - Windows 2008 (x86)

Version: 2013.08.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Prerequisites

The HP supplied Brocade driver must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba. Select your product and then select the Software and Drivers page to find the required driver. The HP Brocade driver is also available on the HP Service Pack for Proliant (SPP) version 2013.09.0 which is available at www.hp.com/go/spp/download.

- HP Storage x86 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2008, version 3.2.1.0, cp019327.exe

Enhancements

Boot bios updated to version 3.2.1.0 to synchronize with HP's Brocade 3.2.1.0 driver.

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Firmware Online Flash for Brocade Fibre Channel Host Bus Adapters - Windows 2008/2012 (x64)

Version: 2013.08.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Prerequisites

The HP supplied Brocade driver must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba. Select your product and then select the Software and Drivers page to find the required driver. The HP Brocade driver is also available on the HP Service Pack for Proliant (SPP) version 2013.09.0 which is available at www.hp.com/go/spp/download.

- HP Storage x64 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2008, version 3.2.1.0, cp019319.exe
- HP Storage x64 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2008 R2, version 3.2.1.0, cp019318.exe
- HP Storage x64 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012, version 3.2.1.0, cp019320.exe

Enhancements

Boot bios updated to version 3.2.1.0 to synchronize with HP's Brocade 3.2.1.0 driver.

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Firmware Online Flash for Brocade Fibre Channel Host Bus Adapters - Windows Server 2012 R2 (x64)

Version: 2013.11.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks Brocade Fibre Channel Host Bus Adapters Release Notes

Prerequisites

The HP supplied Brocade driver must be installed prior to this firmware component being identified by HP SUM for deployment. Information about obtaining the HP-supplied drivers for Windows Server 2012 R2 is found in the technical white paper “Implementing Microsoft Windows Server 2012 R2 on HP ProLiant servers” available at http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-

7658ENW&cc=us&lc=en.

- HP Storage x64 Brocade Storport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server 2012 R2, version 3.2.3.1, cp021773.exe

Enhancements

Initial version to support Microsoft Windows Server 2012 R2

Supported Devices and Features

This firmware supports the following HP adapters:

- HP 41B PCIe 4Gb Fibre Channel Single Port Host Bus Adapter
- HP 42B PCIe 4Gb Fibre Channel Dual Port Host Bus Adapter
- HP 81B PCIe 8Gb Fibre Channel Single Port Host Bus Adapter
- HP 82B PCIe 8Gb Fibre Channel Dual Port Host Bus Adapter
- Brocade 804 8Gb Fibre Channel HBA for c-Class BladeSystem

HP Firmware Online Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters - Windows 2008 x86

Version: 2014.01.01 **(Optional)**

Prerequisites

The HP supplied Emulex driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2014.02.0, which is available at www.hp.com/go/spp/download:

- HP Storage Fibre Channel Adapter Kit for the x86 Emulex Storport Driver v2.76.3.1 cp021141.exe
- HP Storage Fibre Channel Over Ethernet Adapter Kit for the x86 Emulex Storport Driver v2.76.3.1 cp021139.exe

The HP supplied Emulex NIC driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2014.02.0, which is available at www.hp.com/go/spp/download:

- HP Emulex 10GbE Driver for Windows Server 2008 x86 Editions v10.0.430.1109 cp020992.exe

Fixes

Boot Image (BIOS)

4Gb & 8Gb Standup - 5.20a6 (2.12a14 BIOS)

- Resolved boot issues seen on some OEM platforms, where the boot sequence consists of x86 XROM initialization, EFI, then x86 runtime code is called

- Resolved the “unable to boot using a non LUN 0 with AutoScan” issue.

4Gb & 8Gb Mezzanine - 6.10a14 (3.30a1 BIOS)

- The LPe1205 adapter WWPN was missing in the Emulex configuration utility
- Resolved the issue where Boot From SAN was occasionally failing.
- Added support to bypass configuring the PNP Boot Table in a multi-path situation

Firmware

8Gb Standup & Mezzanine - 2.01a12

- The adapter stopped responding during link bounce.
- Corrected a link initialization error in the mezzanine card.
- Corrected an error in the initialization of DMA operation.
- Fixed an issue with memory access (cache).

16Gb Standup & Mezzanine - 1.1.62.0

- Resolved an issue where a reset in the middle of an adapter firmware download corrupts the card.
- Allows installing and booting from an MSA2040 array configured in PT-PT direct mode at 16G speed.

CNA - 4.9.311.20

- Resolved an issue that might result in link up/down when using ETHTOOL_OPTS.
- Corrected an issue with traffic through a switch resulting in a lockup until downlink is disabled.
- Resolved an issue of not discovering the iSCSI boot target when port 1 is configured as primary boot option through DHCP.

Enhancements

Boot Image (BIOS)

4Gb & 8Gb Standup - 5.20a6 (2.12a14 BIOS)

- Converted stand up x86 ROM 8Gb Boot image to be PCI 3.0 FW compliant
- Added support for some newer targets that were not being seen in the target Scan because they were not reporting back as DISK devices.
- Added code to check for duplicate paths using a Device Inquiry command and do not add a duplicate entry to the BBS(Boot block sector) table
- EDD 3.0 is enabled by default

Firmware

8Gb Standup & Mezzanine - 2.01a12

- Added support for disabling out-of-order frame handling.

- Added support for 4G loopback tests.

16Gb Standup & Mezzanine - 1.1.62.0

- Initial support the HP LPe1605 16Gb FC mezzanine card

CNA - 4.9.311.20

- Added support for OCBB (Option Card Black Box – Active Health).
- Added support for VC 4.10.
- EDD 3.0 is enabled by default.
- Incorporates signed UEFI 2.3.1 compatible drivers to support Secure Boot.
- Adds support for multi-path Windows install to RAW disks.

Contains:

CNA firmware 4.9.311.20

16 Gb HBA/Mezz universal boot 1.1.62.0

8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X6
8 Gb HBA/Mezz firmware 2.01a12
8 Gb HBA boot image 5.20a6 (2.12a14 BIOS)
8 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)

4 Gb HBA/Mezz firmware 2.82x4
4 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)
4 Gb HBA boot image 5.20a6 (2.12a14 BIOS)

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter
- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC550SFP Dual Port 10GbE Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter

- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz

HP Firmware Online Flash for Emulex Fibre Channel Host Bus and Converged Network Adapters - Windows 2008/2012/2012 R2 x64

Version: 2014.01.01 **(Optional)**

Prerequisites

The HP supplied Emulex driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2014.02.0, which is available at www.hp.com/go/spp/download:

- HP Storage Fibre Channel Adapter Kit for the x64 Emulex Storport Driver v2.76.3.1 cp021140.exe
- HP Storage Fibre Channel Adapter Kit for the Emulex Storport Driver for Windows Server 2012 and 2012 R2 v2.76.3.1 cp020896.exe
- HP Storage Fibre Channel Over Ethernet Adapter Kit for the x64 Emulex Storport Driver v2.76.3.1 cp021138.exe
- HP Storage Fibre Channel Over Ethernet Adapter Kit for the Emulex Storport Driver for Windows Server 2012 and 2012 R2 v2.76.3.1 cp020897.exe

The HP supplied Emulex NIC driver must be installed prior to this firmware component being identified by HP SUM for deployment. Use the appropriate driver included in the HP Support Pack for ProLiant 2014.02.0, which is available at www.hp.com/go/spp/download:

- HP Emulex 10GbE Driver for Windows Server 2008 x64 Editions v10.0.430.1109 cp020993.exe
- HP Emulex 10GbE Driver for Windows Server 2008 R2 v10.0.430.1109 cp020994.exe
- HP Emulex 10Gbe Driver for Windows Server 2012 v10.0.430.1109 cp020995.exe
- HP Emulex 10Gbe Driver for Windows Server 2012 R2 v10.0.430.1109 cp022157.exe

Fixes

Boot Image (BIOS)

4Gb & 8Gb Standup - 5.20a6 (2.12a14 BIOS)

- Resolved boot issues seen on some OEM platforms, where the boot sequence consists of x86 XROM initialization, EFI, then x86 runtime code is called
- Resolved the “unable to boot using a non LUN 0 with AutoScan” issue.

4Gb & 8Gb Mezzanine - 6.10a14 (3.30a1 BIOS)

- The LPe1205 adapter WWPN was missing in the Emulex configuration utility
- Resolved the issue where Boot From SAN was occasionally failing.
- Added support to bypass configuring the PNP Boot Table in a multi-path situation

Firmware

8Gb Standup & Mezzanine - 2.01a12

- The adapter stopped responding during link bounce.
- Corrected a link initialization error in the mezzanine card.
- Corrected an error in the initialization of DMA operation.
- Fixed an issue with memory access (cache).

16Gb Standup & Mezzanine - 1.1.62.0

- Resolved an issue where a reset in the middle of an adapter firmware download corrupts the card.
- Allows installing and booting from an MSA2040 array configured in PT-PT direct mode at 16G speed.

CNA - 4.9.311.20

- Resolved an issue that might result in link up/down when using ETHTOOL_OPTS.
- Corrected an issue with traffic through a switch resulting in a lockup until downlink is disabled.
- Resolved an issue of not discovering the iSCSI boot target when port 1 is configured as primary boot option through DHCP.

Enhancements

Added support for Windows Server 2012 R2

Boot Image (BIOS)

4Gb & 8Gb Standup - 5.20a6 (2.12a14 BIOS)

- Converted stand up x86 ROM 8Gb Boot image to be PCI 3.0 FW compliant
- Added support for some newer targets that were not being seen in the target Scan because they were not reporting back as DISK devices.
- Added code to check for duplicate paths using a Device Inquiry command and do not add a duplicate entry to the BBS(Boot block sector) table
- EDD 3.0 is enabled by default

Firmware

8Gb Standup & Mezzanine - 2.01a12

- Added support for disabling out-of-order frame handling.
- Added support for 4G loopback tests.

16Gb Standup & Mezzanine - 1.1.62.0

- Initial support the HP LPe1605 16Gb FC mezzanine card

CNA - 4.9.311.20

- Added support for OCBB (Option Card Black Box – Active Health).
- Added support for VC 4.10.
- EDD 3.0 is enabled by default.
- Incorporates signed UEFI 2.3.1 compatible drivers to support Secure Boot.
- Adds support for multi-path Windows install to RAW disks.

Contains:

CNA firmware 4.9.311.20

16 Gb HBA/Mezz universal boot 1.1.62.0

8 Gb Gen8 Mezz (LPe1205A) firmware 2.02X6
8 Gb HBA/Mezz firmware 2.01a12
8 Gb HBA boot image 5.20a6 (2.12a14 BIOS)
8 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)

4 Gb HBA/Mezz firmware 2.82x4
4 Gb Mezz boot image 6.10a14 (3.30a1 BIOS)
4 Gb HBA boot image 5.20a6 (2.12a14 BIOS)

Supported Devices and Features

- HP StorageWorks FC2243 4 Gb PCI-X 2.0 DC HBA
- HP FC2242SR 4Gb PCIe DC Host Bus Adapter
- HP StorageWorks FC2143 4 Gb PCI-X 2.0 HBA
- HP FC2142SR 4Gb PCIe Host Bus Adapter
- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP CN1000E Dual Port Converged Network Adapter
- HP CN1100E Dual Port Converged Network Adapter
- HP Flex-10 10Gb 2-port 552M Adapter
- HP NC553m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC553i 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552m 10Gb 2-port FlexFabric Converged Network Adapter
- HP NC552SFP 10Gb 2-port Ethernet Server Adapter
- HP NC551m Dual Port FlexFabric 10Gb Converged Network Adapter

- HP NC551i Dual Port FlexFabric 10Gb Network Adapter
- HP NC550SFP Dual Port 10GbE Server Adapter
- HP FlexFabric 10Gb 2-port 554M Adapter
- HP FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 554FLB Adapter
- HP NC550m Dual Port Flex-10 10Gbe BL-c Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- Emulex LPe1105 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz

HP Firmware Online Flash for QLogic Fibre Channel Host Bus Adapters - Windows 2008 (x86)

Version: 2014.02.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

The HP supplied QLogic driver kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba and www.hp.com/go/cna. Select your product and then select the Software and Drivers page to find the required driver.

Enhancements

- Added UEFI driver for 8 Gb and 16 Gb products (except QMH2572).

This component contains:

- 4 Gb HBA/Mezz
  - Package 2.03AF
  - Firmware 5.03.15
  - BIOS 3.13
- 8 Gb HBA/Mezz
  - Package 3.60A2
  - Firmware 5.09.00
  - BIOS 3.13
  - UEFI 6.23
- 16 Gb HBA/Mezz
  - Package 3.90.01
  - Firmware 6.07.02
  - BIOS 3.21
  - UEFI 6.20

- QMH2572 FC Mezz
  - Package 2.59AF
  - Firmware 5.06.04
  - BIOS 3.13

Supported Devices and Features

This firmware supports the following HP adapters:

- HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA
- HP StorageWorks FC1243 4Gb PCI-X 2.0 Dual Channel HBA
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

HP Firmware Online Flash for QLogic Fibre Channel Host Bus Adapters - Windows 2008/2012 (x64)

Version: 2014.02.01 **(Optional)**

Important Note!

Release Notes:
HP StorageWorks QLogic Adapters Release Notes

Prerequisites

The HP supplied QLogic driver kit must be installed prior to this firmware component being identified by HP SUM for deployment. The software is available from www.hp.com/go/fchba and www.hp.com/go/cna. Select your product and then select the Software and Drivers page to find the required driver.

Enhancements

- Added UEFI driver for 8 Gb and 16 Gb products (except QMH2572).

  This component contains:

- 4 Gb HBA/Mezz
  - Package 2.03AF
  - Firmware 5.03.15
  - BIOS 3.13

- 8 Gb HBA/Mezz

- Package 3.60A2
- Firmware 5.09.00
- BIOS 3.13
- UEFI 6.23

- 16 Gb HBA/Mezz
  - Package 3.90.01
  - Firmware 6.07.02
  - BIOS 3.21
  - UEFI 6.20

- QMH2572 8 Gb FC Mezz
  - Package 2.59AF
  - Firmware 5.06.04
  - BIOS 3.13

Supported Devices and Features

This firmware supports the following HP adapters:

- HP StorageWorks FC1143 4Gb PCI-X 2.0 HBA
- HP StorageWorks FC1243 4Gb PCI-X 2.0 Dual Channel HBA
- HP FC1142SR 4Gb PCIe Host Bus Adapter
- HP FC1242SR 4Gb PCIe DC Host Bus Adapter
- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- QLogic QMH2562 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- QLogic QMH2462 4Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16Gb Fibre Channel Host Bus Adapter
- HP QMH2672 16Gb FC HBA for c-Class BladeSystem

Firmware - Storage Tape

Top

HP StoreEver Tape Firmware for Linux

Version: 3.8.0.0 **(Optional)**

Important Note!

On HP ProLiant G6/7 servers with an HP Smart Array P212 Storage Controller card, an error can occur in the following configuration:
• HP SAS Tape drive
• HP Smart Array P212 Controller card
• SUSE LINUX Enterprise Server 11 (x86) or SUSE LINUX Enterprise Server 11 (AMD64/EM64T)
• Version 4.6.24-5 of HP ProLiant Smart Array Controller (x86/AMD32) Driver for SUSE LINUX Enterprise Server 11 (x86) or HP ProLiant Smart Array Controller (AMD64/EM64T) Driver for SUSE LINUX Enterprise

Server 11 (AMD64/EM64T) - – These drivers are available on HP.COM as an individual downloads and bundled in the HP ProLiant Support Pack 8.51 for SUSE LINUX Enterprise Server 11 (i686) or HP ProLiant Support Pack 8.51 for SUSE LINUX Enterprise Server 11 (x86_64), respectively.

Note: When these drivers are installed on the target system, the driver filename begins with 'cciss'.

Upon installation of the above mentioned cciss driver, an HP initrd boot environment is created and made the default. In this environment, attempting to update a SAS tape drive firmware results in the drive going offline (without updating the drive firmware) and the system must be rebooted to restore the drive connection.
The following workaround exists to allow firmware updates and expected drive results.

1. Open a command line terminal
2. Enter the command: gedit/boot/grub/menu.lst
3. Once the file is open, change the line "setting default=x" where x = any number, to "setting default=0"
4. Save the file
5. Reboot the system

The system will now boot into the default SLES environment and allow expected functionality to occur.

Prerequisites

Make sure that the tape drive is available and not running any backup, restore, copy, or verify jobs before attempting to upgrade the tape drive firmware from a Linux system. When the tape drive is engaged in one of these jobs, the firmware upgrade process cannot begin until the tape drive has completed processing of any current jobs.

Fixes

The fixes below are only applicable for the following firmware revisions and devices:

HP StoreEver LTO-6 Ultrium 6650 SAS Tape Drive

Drive firmware version O39D
Update recommendation Recommended
Supersedes O2BD

- Corner-case situations resulted in Space/Locate 0x5090/0x5092 reporting errors.
- An assert reset was possible on a load when re-initializing the write/read channel adaption routines.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- Firmware race condition might cause a multi-partitioned cartridge to be reported as having only a single partition.
- A firmware upgrade over the primary port, after loading a cleaning cartridge, will fail with an 0x1C2B error.

HP StoreEver LTO-6 Ultrium 6250 SAS Tape Drive

Drive firmware version 338D
Update recommendation Recommended
Supersedes 32BD

- Corner-case situations resulted in Space/Locate 0x5090/0x5092 reporting errors.
- An assert reset was possible on a load when re-initializing the write/read channel adaption routines.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- Firmware race condition might cause a multi-partitioned cartridge to be reported as having only a single partition.
- A firmware upgrade over the primary port, after loading a cleaning cartridge, will fail with an 0x1C2B error.

HP StoreEver LTO-5 Ultrium 3280 SAS Tape Drive

Drive firmware version X64D
Update recommendation Recommended
Supersedes X5BD

- Space/Locate 0x5090/0x5092 reporting errors that resulted from corner-case situations.
- New tapes labelled by a drive containing an earlier firmware revision might get reported as a blank tape.
- The drive might become unresponsive during writing due to internal hardware power-on sequencing.
- Forcing writes to the physical EOT (End Of Tape) might result in the last wrap getting overwritten under corner case conditions.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- Poor performance when connected to some 6Gb SAS HBAs.
- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- A Tape Alert flag 56 (0x38) was not being cleared when the issue was resolved.
- A Tape Alert 55 (0x37) error was not being triggered on a failure to thread the tape during a load.

HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive

Drive firmware version Z64D
Update recommendation Recommended
Supersedes Z5AD

- Space/Locate 0x5090/0x5092 reporting errors that resulted from corner-case situations.
- New tapes labelled by a drive containing an earlier firmware revision might get reported as a blank tape.
- The drive might become unresponsive during writing due to internal hardware power-on sequencing.
- Forcing writes to the physical EOT (End Of Tape) might result in the last wrap getting overwritten under corner case conditions.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- Poor performance when connected to some 6Gb SAS HBAs.

- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- A Tape Alert flag 56 (0x38) was not being cleared when the issue was resolved.
- A Tape Alert 55 (0x37) error was not being triggered on a failure to thread the tape during a load.

Enhancements

The enhancements below are only applicable for the following firmware revisions and devices:

HP StoreEver LTO-6 Ultrium 6650 SAS Tape Drive

Drive firmware version O39D
Update recommendation Recommended
Supersedes O2BD

- Improved the internal drive logging.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Enhanced the process for the drive to request a cleaning tape and report associated Tape Alerts if a 0x7519 write fault is encountered.
- Changed servo parameter to make the drive more robust to media servo issues

HP StoreEver LTO-6 Ultrium 6250 SAS Tape Drive

Drive firmware version 338D
Update recommendation Recommended
Supersedes 32BD

- Improved the internal drive logging.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Enhanced the process for the drive to request a cleaning tape and report associated Tape Alerts if a 0x7519 write fault is encountered.
- Changed servo parameter to make the drive more robust to media servo issues

HP StoreEver LTO-5 Ultrium 3280 SAS Tape Drive

Drive firmware version X64D
Update recommendation Recommended
Supersedes X5BD

- New Functionality: Added "cached" READ ATTRIBUTE command support to allow Cartridge Memory data to be accessed after the tape has been unloaded.
- Enhanced the load rotation check to reduce unload failures.
- Improved spacing performance by eliminating an unnecessary reposition.
- Increased tape speed during space/locates to reduce occurrences of 0x5090/0x5092 errors.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Improved the internal drive logging.

HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive

Drive firmware version Z64D
Update recommendation Recommended
Supersedes Z5AD

- New Functionality: Added "cached" READ ATTRIBUTE command support to allow Cartridge Memory data to be accessed after the tape has been unloaded.
- Enhanced the load rotation check to reduce unload failures.
- Improved spacing performance by eliminating an unnecessary reposition.
- Increased tape speed during space/locates to reduce occurrences of 0x5090/0x5092 errors.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Improved the internal drive logging.

Supported Devices and Features

Supported tape drives and firmware revisons included in this package

Tape Drive	Firmware Revision
HP DAT 72 USB	ZU8B
HP DAT 72 SCSI	ZPBC
HP DAT160 SCSI	WP8A
HP DAT160 USB	WU8A
HP DAT160 SAS	WSB8
HP DAT320 USB	VUA8
HP DAT320 SAS	VSA6
HP Ultrium 232 SCSI	P61D
HP Ultrium 448 SCSI	S65D
HP Ultrium 448 SAS	T65D
HP Ultrium 460 SCSI	F63D
HP Ultrium 920 SCSI	D22D
HP Ultrium 920 SAS	C26D
HP Ultrium 920 SAS	Q51D
HP Ultrium 960 SCSI	G66D
HP Ultrium 1760 SAS	U64D
HP Ultrium 1760 SCSI	W62D
HP Ultrium 1840 SAS	A63D
HP Ultrium 1840 SCSI	B63D
HP Ultrium 3280 SAS	X64D
HP Ultrium 3000 SAS	Z64D
HP Ultrium 6250 SAS	338D
HP Ultrium 6650 SAS	O39D

HP StoreEver Tape Firmware for Microsoft Windows

Version: 3.8.0.0 (b) **(Optional)**

Fixes

The fixes below are only applicable for the following firmware revisions and devices:

HP StoreEver LTO-6 Ultrium 6650 SAS Tape Drive

Drive firmware version O39D
Update recommendation Recommended
Supersedes O2BD

- Corner-case situations resulted in Space/Locate 0x5090/0x5092 reporting errors.
- An assert reset was possible on a load when re-initializing the write/read channel adaption routines.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- Firmware race condition might cause a multi-partitioned cartridge to be reported as having only a single partition.
- A firmware upgrade over the primary port, after loading a cleaning cartridge, will fail with an 0x1C2B error.

HP StoreEver LTO-6 Ultrium 6250 SAS Tape Drive

Drive firmware version 338D
Update recommendation Recommended
Supersedes 32BD

- Corner-case situations resulted in Space/Locate 0x5090/0x5092 reporting errors.
- An assert reset was possible on a load when re-initializing the write/read channel adaption routines.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- Firmware race condition might cause a multi-partitioned cartridge to be reported as having only a single partition.
- A firmware upgrade over the primary port, after loading a cleaning cartridge, will fail with an 0x1C2B error.

HP StoreEver LTO-5 Ultrium 3280 SAS Tape Drive

Drive firmware version X64D
Update recommendation Recommended
Supersedes X5BD

- Space/Locate 0x5090/0x5092 reporting errors that resulted from corner-case situations.
- New tapes labelled by a drive containing an earlier firmware revision might get reported as a blank tape.

- The drive might become unresponsive during writing due to internal hardware power-on sequencing.
- Forcing writes to the physical EOT (End Of Tape) might result in the last wrap getting overwritten under corner case conditions.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- Poor performance when connected to some 6Gb SAS HBAs.
- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- A Tape Alert flag 56 (0x38) was not being cleared when the issue was resolved.
- A Tape Alert 55 (0x37) error was not being triggered on a failure to thread the tape during a load.

HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive

Drive firmware version Z64D
Update recommendation Recommended
Supersedes Z5AD

- Space/Locate 0x5090/0x5092 reporting errors that resulted from corner-case situations.
- New tapes labelled by a drive containing an earlier firmware revision might get reported as a blank tape.
- The drive might become unresponsive during writing due to internal hardware power-on sequencing.
- Forcing writes to the physical EOT (End Of Tape) might result in the last wrap getting overwritten under corner case conditions.
- Writing to partitioned tapes might result in 0x5092 errors being reported on subsequent reads.
- Poor performance when connected to some 6Gb SAS HBAs.
- The Cartridge Memory update failed causing assert reset due to other internal firmware processes overflowing the queue.
- A Tape Alert flag 56 (0x38) was not being cleared when the issue was resolved.
- A Tape Alert 55 (0x37) error was not being triggered on a failure to thread the tape during a load.

Enhancements

The enhancements below are only applicable for the following firmware revisions and devices:

HP StoreEver LTO-6 Ultrium 6650 SAS Tape Drive

Drive firmware version O39D
Update recommendation Recommended
Supersedes O2BD

- Improved the internal drive logging.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Enhanced the process for the drive to request a cleaning tape and report associated Tape Alerts if a 0x7519 write fault is encountered.
- Changed servo parameter to make the drive more robust to media servo issues

HP StoreEver LTO-6 Ultrium 6250 SAS Tape Drive

Drive firmware version 338D

Update recommendation Recommended
Supersedes 32BD

- Improved the internal drive logging.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Enhanced the process for the drive to request a cleaning tape and report associated Tape Alerts if a 0x7519 write fault is encountered.
- Changed servo parameter to make the drive more robust to media servo issues

HP StoreEver LTO-5 Ultrium 3280 SAS Tape Drive

Drive firmware version X64D
Update recommendation Recommended
Supersedes X5BD

- New Functionality: Added "cached" READ ATTRIBUTE command support to allow Cartridge Memory data to be accessed after the tape has been unloaded.
- Enhanced the load rotation check to reduce unload failures.
- Improved spacing performance by eliminating an unnecessary reposition.
- Increased tape speed during space/locates to reduce occurrences of 0x5090/0x5092 errors.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Improved the internal drive logging.

HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive

Drive firmware version Z64D
Update recommendation Recommended
Supersedes Z5AD

- New Functionality: Added "cached" READ ATTRIBUTE command support to allow Cartridge Memory data to be accessed after the tape has been unloaded.
- Enhanced the load rotation check to reduce unload failures.
- Improved spacing performance by eliminating an unnecessary reposition.
- Increased tape speed during space/locates to reduce occurrences of 0x5090/0x5092 errors.
- Added final checking of the calibrated Servo band position values to the servo band calibration routine.
- Improved the internal drive logging.

Supported Devices and Features

Supported tape drives and firmware revisons included in this package

Tape Drive	Firmware Revision
HP DAT 72 USB	ZU8B
HP DAT 72 SCSI	ZPBC
HP DAT160 SCSI	WP8A
HP DAT160 USB	WU8A

HP DAT160 SAS	WSB8
HP DAT320 USB	VUA8
HP DAT320 SAS	VSA6
HP Ultrium 232 SCSI	P61D
HP Ultrium 448 SCSI	S65D
HP Ultrium 448 SAS	T65D
HP Ultrium 460 SCSI	F63D
HP Ultrium 920 SCSI	D22D
HP Ultrium 920 SAS	C26D
HP Ultrium 920 SAS	Q51D
HP Ultrium 960 SCSI	G66D
HP Ultrium 1760 SAS	U64D
HP Ultrium 1760 SCSI	W62D
HP Ultrium 1840 SAS	A63D
HP Ultrium 1840 SCSI	B63D
HP Ultrium 3280 SAS	X64D
HP Ultrium 3000 SAS	Z64D
HP Ultrium 6250 SAS	338D
HP Ultrium 6650 SAS	O39D

Software - Lights-Out Management

Top

Headless Server Registry Update for Windows

Version: 1.0.0.0 (F) **(Optional)**

Enhancements

Allow installation on Windows Server 2012.

HP Lights-Out Online Configuration Utility for Linux (AMD64/EM64T)

Version: 4.3.0-0 **(Recommended)**

Prerequisites

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver and management agents must be installed on the server.

Enhancements

This version adds support for the following features and enhancements:

- iLO Federation Management

HP Lights-Out Online Configuration Utility for Linux (x86/AMD32)

Version: 4.3.0 **(Recommended)**

Prerequisites

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver and management agents must be installed on the server.

Enhancements

This version adds support for the following features and enhancements:

- iLO Federation Management

HP Lights-Out Online Configuration Utility for Windows 2003/2008/2012 x64 Editions

Version: 4.3.0.0 **(Recommended)**

Prerequisites

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver must be installed on the server.

Microsoft .Net Framework 2.0 (full version) or later is required to launch HPONCFG GUI.

Fixes

None

Enhancements

This version adds support for the following features and enhancements:

- iLO Federation Management

HP Lights-Out Online Configuration Utility for Windows Server 2003/2008

Version: 4.3.0.0 **(Recommended)**

Prerequisites

This utility requires the following minimum firmware revisions:

- Integrated Lights-Out 2 firmware v1.00 or later
- Integrated Lights-Out 3 firmware v1.00 or later
- Integrated Lights-Out 4 firmware v1.00 or later

The management interface driver must be installed on the server.

Microsoft .Net Framework 2.0 (full version) or later is required to launch HPONCFG GUI.

Fixes

None

Enhancements

This version adds support for the following features and enhancements:

- iLO Federation Management

PFA Server Registry Update for Windows

Version: 1.0.0.0 (E) **(Optional)**

Enhancements

Add support for Windows Server 2012 R2.

Software - Management

Top

Broadcom Advanced Control Suite for Windows Server 2008

Version: 16.3.6.0 **(Optional)**

Fixes

This software corrects an issue where BACSCLI commands failed if the computer name was in lower case.

Enhancements

Diagnostic tests previously available in the BACS GUI are now available in the BACS Command Line Interface.

Broadcom Advanced Control Suite for Windows Server x64 Editions

Version: 16.3.6.0 (B) **(Optional)**

Fixes

This software corrects an issue where BACSCLI commands failed if the computer name was in lower case.

Enhancements

Diagnostic tests previously available in the BACS GUI are now available in the BACS Command Line Interface (BACSCLI).

Software - Network

Top

Broadcom Active Health System Agent for HP ProLiant Network Adapters for Linux i586

Version: 1.0.12-1 **(Optional)**

Fixes

This version corrects an issue where the lock file permissions were set incorrectly. Access to the lock file is now restricted to the owner only.

Enhancements

This software now supports the HP Ethernet 1Gb 2-port 332i Adapter.

Supported Devices and Features

This software supports the following Broadcom network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

Broadcom Active Health System Agent for HP ProLiant Network Adapters for Linux x86_64

Version: 1.0.12-1 **(Optional)**

Fixes

This version corrects an issue where the lock file permissions were set incorrectly. Access to the lock file is now restricted to the owner only.

Enhancements

This software now supports the HP Ethernet 1Gb 2-port 332i Adapter.

Supported Devices and Features

This software supports the following Broadcom network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter
- HP Ethernet 1Gb 4-port 331FLR Adapter
- HP Ethernet 1Gb 4-port 331i Adapter
- HP Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter
- HP Ethernet 1Gb 2-port 332T Adapter

Intel Active Health System Agent for HP ProLiant Network Adapters for Linux i586

Version: 1.1.43.0-1 **(Optional)**

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Supported Devices and Features

This software supports the following Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 2-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Intel Active Health System Agent for HP ProLiant Network Adapters for Linux x86_64

Version: 1.1.43.0-1 **(Optional)**

Enhancements

This software now supports the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 2-port 364i Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Supported Devices and Features

This software supports the following Intel network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter

- HP Ethernet 1Gb 2-port 361FLB Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 2-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 2-port 367i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562i Adapter

Software - Storage Controller

Top

HP ProLiant Smart Array SAS/SATA Event Notification Service for Windows Server 2008 (x86) 32-bit

Version: 6.36.0.32 **(Optional)**

Fixes

Fixed issue in which “last lockup code” was not being reported in proper hex format.

Enhancements

- Added support for new PHY disabled event.
- Added support for new PHY threshold exceeded events.

HP ProLiant Smart Array SAS/SATA Event Notification Service for Windows Server 2008 x64 Editions and Windows Server 2012

Version: 6.36.0.64 **(Optional)**

Fixes

Fixed issue in which “last lockup code” was not being reported in proper hex format.

Enhancements

- Added support for new PHY disabled event.
- Added support for new PHY threshold exceeded events.

Software - Storage Fibre Channel HBA

Top

Fibreutils for HP Storage Fibre Channel Host Bus Adapters for Linux (x86)

Version: 3.2-6 **(Optional)**

Prerequisites

- Requires the following packages to be installed: glibc libgcc libstdc++ bash perl

Enhancements

- Updated for RHEL5.9

Fibreutils for HP Storage Fibre Channel Host Bus Adapters for Linux (x86_64)

Version: 3.2-6 **(Optional)**

Prerequisites

- Requires the following packages to be installed: glibc libgcc libstdc++ bash perl

Enhancements

- Updated for RHEL 5.9

HP Fibre Channel Enablement Kit for Linux

Version: 2.0.0.0-4 **(Recommended)**

Important Note!

There has been a change to the enablement kits in this release. They are now vendor specific kits. Therefore, an update from a previously released version is not possible.

Enhancements

This is the first release of the vendor specific kit. It contains support for only Qlogic adapters.

HP Fibre Channel Enablement Kit for Linux

Version: 6.4.19.2-1 **(Optional)**

Important Note!

There has been a change to the enablement kits in this release. They are now vendor specific kits. Therefore, an update from a previously released version is not possible.

Enhancements

Initial release.

HP Fibre Channel Enablement Kit for Linux

Version: 4.0.0.0 **(Optional)**

Enhancements

Includes support for RHEL 6.5.

HP Fibre Channel Enablement Kit for Linux

Version: 4.0.0.0 **(Optional)**

Enhancements

Updated to version 4.0.0.0.

Software - System Management

Top

HP Insight Diagnostics Online Edition for Linux (x86 32-bit)

Version: 9.64.1262-1202 **(Recommended)**

Prerequisites

The following component(s) are required for HP Insight Diagnostics Online Edition for Linux:

- HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Linux to make full use of its capabilities:

- HP System Health Application, version 9.0.0 or higher

Fixes

Contains fixes to support the next generation of HP servers.

Enhancements

Added support for new HP ProLiant Gen 8 servers:

- HP ProLiant BL465c Gen8 Server
- HP ProLiant BL420c Gen8 Server
- HP ProLiant DL385p Gen8 Server
- HP ProLiant DL380e Gen8 Server
- HP ProLiant DL360e Gen8 Server
- HP ProLiant DL320e Gen8 Server
- HP ProLiant ML350e Gen8 Server
- HP ProLiant ML310e Gen8 Server

See the HP Service Pack for ProLiant Release Notes for more information.

See the HP Service Pack for ProLiant Server Support Guide for information on supported servers.

HP Insight Diagnostics Online Edition for Linux (x86-64)

Version: 9.64.1262-1202 **(Recommended)**

Prerequisites

The following component(s) are required for HP Insight Diagnostics Online Edition for Linux:

- HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Linux to make full use of its capabilities:

- HP System Health Application, version 9.0.0 or higher

Fixes

Contains fixes to support next generation of HP servers.

Enhancements

Added support for new HP ProLiant Gen 8 servers:

- HP ProLiant BL465c Gen8 Server
- HP ProLiant BL420c Gen8 Server
- HP ProLiant DL385p Gen8 Server
- HP ProLiant DL380e Gen8 Server
- HP ProLiant DL360e Gen8 Server
- HP ProLiant DL320e Gen8 Server
- HP ProLiant ML350e Gen8 Server
- HP ProLiant ML310e Gen8 Server

See the HP Service Pack for ProLiant Release Notes for more information.

See the HP Service Pack for ProLiant Server Support Guide for information on supported servers.

HP Insight Diagnostics Online Edition for Windows

Version: 9.64.1262.0 **(Recommended)**

Important Note!

Known Limitations

Under HP Insight Diagnostics Online Edition for Windows, the Survey feature no longer supports displaying properties of Logical Drives that are attached to certain Smart Array controllers, either directly

or through an enclosure (such as an HP Modular Smart Array). The controllers affected are:

- Smart Array 6i Controller
- Smart Array 641 Controller
- Smart Array 642 Controller
- Smart Array 6402 Controller
- Smart Array 6404 Controller

These controllers do not support the commands used to obtain logical drive properties. There are currently no plans to add such support to the controllers, nor to add legacy support to future versions of HP Insight Diagnostics.

As a work-around, HP Insight Diagnostics Online Edition for Windows, version **8.5 or earlier**, may be used to display logical drive properties in Survey. The HP Array Configuration Utility, available from hp.com, can also display information about logical drives attached to these controllers.

Prerequisites

The following component(s) are required for HP Insight Diagnostics Online Edition for Linux:

- HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Linux to make full use of its capabilities:

- HP ProLiant Agentless Management Service, version 9.0.0.0 or higher
- HP ProLiant Integrated Lights-Out Management Interface Driver, version 1.15.0.0 or higher

Fixes

Contains fixes related to the next generation of HP server products.

Enhancements

Added support for new HP ProLiant Gen 8 servers:

- HP ProLiant BL465c Gen8 Server
- HP ProLiant BL420c Gen8 Server
- HP ProLiant DL385p Gen8 Server
- HP ProLiant DL380e Gen8 Server
- HP ProLiant DL360e Gen8 Server
- HP ProLiant DL320e Gen8 Server
- HP ProLiant ML350e Gen8 Server
- HP ProLiant ML310e Gen8 Server

See the HP Service Pack for ProLiant Release Notes for more information.

See the HP Service Pack for ProLiant Server Support Guide for information on supported servers.

HP Insight Diagnostics Online Edition for Windows x64 Editions

Version: 9.64.1262.0 **(Recommended)**

Important Note!

Known Limitations

Under HP Insight Diagnostics Online Edition for Windows, the Survey feature no longer supports displaying properties of Logical Drives that are attached to certain Smart Array controllers, either directly or through an enclosure (such as an HP Modular Smart Array). The controllers affected are:

- Smart Array 6i Controller
- Smart Array 641 Controller
- Smart Array 642 Controller
- Smart Array 6402 Controller
- Smart Array 6404 Controller

These controllers do not support the commands used to obtain logical drive properties. There are currently no plans to add such support to the controllers, nor to add legacy support to future versions of HP Insight Diagnostics.

As a work-around, HP Insight Diagnostics Online Edition for Windows, version **8.5 or earlier**, may be used to display logical drive properties in Survey. The HP Array Configuration Utility, available from hp.com, can also display information about logical drives attached to these controllers.

Prerequisites

The following component(s) are required for HP Insight Diagnostics Online Edition for Linux:

- HP System Management Homepage, version 7.0.0-12 or higher

The following component(s) are recommended for HP Insight Diagnostics Online Edition for Linux to make full use of its capabilities:

- HP ProLiant Agentless Management Service, version 9.0.0.0 or higher
- HP ProLiant Integrated Lights-Out Management Interface Driver, version 1.15.0.0 or higher

Fixes

Contains fixes/enhancements related to next generation of HP server products.

Enhancements

Added support for new HP ProLiant Gen 8 servers:

- HP ProLiant BL465c Gen8 Server
- HP ProLiant BL420c Gen8 Server
- HP ProLiant DL385p Gen8 Server
- HP ProLiant DL380e Gen8 Server
- HP ProLiant DL360e Gen8 Server

- HP ProLiant DL320e Gen8 Server
- HP ProLiant ML350e Gen8 Server
- HP ProLiant ML310e Gen8 Server

See the HP Service Pack for ProLiant Release Notes for more information.

See the HP Service Pack for ProLiant Server Support Guide for information on supported servers.

HP Insight Management Agents for Windows Server

Version: 9.50.0.0 **(Recommended)**

Prerequisites

SNMP Service.

Fixes

Server Agents

- Fix for cpqHomIbCondition returns value of 1 = "Unknown" instead of 2 = O.K.
- Fix for Memory operating frequency displayed in SMH
- Fix for Event selection option in HP Event Notifier settings window
- Fix for Populate NVIDIA Quadro K2000 VGA card details
- Fix for System Health Status is OK even though the NIC is Degraded for Trap 11020
- Fix for correctable error report in memory subsystem page under SMH after uncorrectable MEI
- Fix for Two traps 9015 9016 are not implemented on Windows agents (SIE50987)
- Fix for Server Agent help fails to display processors help page

Storage Agents

- Fix for hot adding and hot removing JBOD from H2xx SAS HBA. SNMP data and System Management Homepage are now correctly updated when D2600 and D2700 are hot added/removed to/from H2xx based HBAs and above.
- Fix for tape drive negotiated link rate displayed as “N/A” when a 6Gb tape drive is attached to Smart Array. Support for 6Gb and 12 Gb negotiated link rates for tape drives and libraries added.
- Fix for Rotational Speed for some SAS hard drives attached to Smart Array reported as “Unknown”. Rotational speed tolerance levels updated in 950 storage agents to coincide with latest HP SAS hard drives specification.
- Fix added in SAS agent to ensure a call that is made to each hard drive to determine if it is an SSD, is made only once (and not every agent poll cycle).
- Fix for SmartSSD Wear Gauge not always being displayed for SSDs attached to Smart Array controllers.

Enhancements

Server Agents

- Support for UEFI based HP Proliant Servers
- Support for IPv6 NIC Configuration
- Updated cpqHoOsType MIB enumerations
- Added NIC device details as per 10.85 NCU design spec

- Added Storage controller device details

Storage Agents

- Added support for Smart Array P530 Controller.
- Added support for Smart Array P531 Controller.
- Updated help files (System Management Homepage/ storage page).

HP Insight Management Agents for Windows Server x64 Editions

Version: 9.50.0.0 **(Recommended)**

Prerequisites

SNMP service.

Fixes

Server Agents

- Fix for cpqHomIbCondition returns value of 1 = "Unknown" instead of 2 = O.K.
- Fix for Memory operating frequency displayed in SMH
- Fix for Event selection option in HP Event Notifier settings window
- Fix for Populate NVIDIA Quadro K2000 VGA card details
- Fix for System Health Status is OK even though the NIC is Degraded for Trap 11020
- Fix for correctable error report in memory subsystem page under SMH after uncorrectable MEI
- Fix for Two traps 9015 9016 are not implemented on Windows agents (SIE50987)
- Fix for Server Agent help fails to display processors help page

Storage Agents

- Fix for hot adding and hot removing JBOD from H2xx SAS HBA. SNMP data and System Management Homepage are now correctly updated when D2600 and D2700 are hot added/removed to/from H2xx based HBAs and above.
- Fix for tape drive negotiated link rate displayed as “N/A” when a 6Gb tape drive is attached to Smart Array. Support for 6Gb and 12 Gb negotiated link rates for tape drives and libraries added.
- Fix for Rotational Speed for some SAS hard drives attached to Smart Array reported as “Unknown”. Rotational speed tolerance levels updated in 950 storage agents to coincide with latest HP SAS hard drives specification.
- Fix added in SAS agent to ensure a call that is made to each hard drive to determine if it is an SSD, is made only once (and not every agent poll cycle).
- Fix for SmartSSD Wear Gauge not always being displayed for SSDs attached to Smart Array controllers.

Enhancements

Server Agents

- Support for UEFI based HP Proliant Servers
- Support for IPv6 NIC Configuration
- Updated cpqHoOsType MIB enumerations
- Added NIC device details as per 10.85 NCU design spec
- Added Storage controller device details

Storage Agents

- Added support for Smart Array P530 Controller.
- Added support for Smart Array P531 Controller.
- Updated help files (System Management Homepage/ storage page).

HP Insight Management WBEM Providers for Windows Server

Version: 9.5.0.0 **(Optional)**

Prerequisites

The HP Insight Management WBEM Providers version 9.0.0.0 require storage, network, system management controller, and Lights-Out interface drivers from PSP 9.00.

In addition, the System Management Homepage (SMH) component is required for a single server web-based user interface.

Enhancements

- Support for Unified Extensible Firware Interface Platforms
- Encryption status reporting for Smart Array controllers

HP Insight Management WBEM Providers for Windows Server x64 Editions

Version: 9.5.0.0 **(Optional)**

Prerequisites

The HP Insight Management WBEM Providers version 9.0.0.0 require storage, network, system management controller, and Lights-Out interface drivers from PSP 9.00.

In addition, the System Management Homepage (SMH) component is required for a single server web-based user interface.

Enhancements

- Support for Unified Extensible Firware Interface Platforms
- Encryption status reporting for Smart Array controllers

HP ProLiant Agentless Management Service for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 1.5.0 **(Optional)**

Prerequisites

- **hp-ams only supported on HP ProLiant Gen8 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- UEFI (Unified Extensible Firmware Interface) platform.
- Linux Operating System Management Functions (cpqLinOs (.1.3.6.1.4.1.232.23) MIBs).
- Fibre Channel HBAs (cpqFca (.1.3.6.1.4.1.232) MIBs).
- MIB-II for IPv6.

HP ProLiant Agentless Management Service for Red Hat Enterprise Linux 5 (x86)

Version: 1.5.0 **(Optional)**

Prerequisites

- **hp-ams only supported on HP ProLiant Gen8 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- Linux Operating System Management Functions (cpqLinOs (.1.3.6.1.4.1.232.23) MIBs).
- Fibre Channel HBAs (cpqFca (.1.3.6.1.4.1.232) MIBs).
- MIB-II for IPv6.

HP ProLiant Agentless Management Service for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 1.5.0 **(Optional)**

Prerequisites

- **hp-ams only supported on HP ProLiant Gen8 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- UEFI (Unified Extensible Firmware Interface) platform.
- Linux Operating System Management Functions (cpqLinOs (.1.3.6.1.4.1.232.23) MIBs).
- Fibre Channel HBAs (cpqFca (.1.3.6.1.4.1.232) MIBs).
- MIB-II for IPv6.

HP ProLiant Agentless Management Service for Red Hat Enterprise Linux 6 (x86)

Version: 1.5.0 **(Optional)**

Prerequisites

- **hp-ams only supported on HP ProLiant Gen8 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
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  - Minimum HP iLO 4 Firmware Version = 1.05
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Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- Linux Operating System Management Functions (cpqLinOs (.1.3.6.1.4.1.232.23) MIBs).
- Fibre Channel HBAs (cpqFca (.1.3.6.1.4.1.232) MIBs).
- MIB-II for IPv6.

HP ProLiant Agentless Management Service for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 1.5.0 **(Optional)**

Prerequisites

- **hp-ams only supported on HP ProLiant Gen8 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
- **Requirements:**
  - Minimum HP iLO 4 Firmware Version = 1.05
  - Minimum supported OS Versions = Red Hat Enterprise Linux 5.6, Red Hat Enterprise Linux 6.0, SuSE Linux Enterprise Server 10 SP4, SuSE Linux Enterprise Server 11 SP1

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- UEFI (Unified Extensible Firmware Interface) platform.
- Linux Operating System Management Functions (cpqLinOs (.1.3.6.1.4.1.232.23) MIBs).
- Fibre Channel HBAs (cpqFca (.1.3.6.1.4.1.232) MIBs).
- MIB-II for IPv6.

HP ProLiant Agentless Management Service for SUSE LINUX Enterprise Server 11 (x86)

Version: 1.5.0 **(Optional)**

Prerequisites

- **hp-ams only supported on HP ProLiant Gen8 Servers.**
- **hp-ams provides information to the HP iLO 4 service providing SNMP support.**
- **SNMP PASS-THRU on the HP iLO 4 MUST be disabled, and SNMP should be configured on the HP iLO 4. The HP iLO 4 may need to be reset after changing these settings.**
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  - Minimum HP iLO 4 Firmware Version = 1.05
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Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- Linux Operating System Management Functions (cpqLinOs (.1.3.6.1.4.1.232.23) MIBs).
- Fibre Channel HBAs (cpqFca (.1.3.6.1.4.1.232) MIBs).
- MIB-II for IPv6.

HP ProLiant Agentless Management Service for Windows X64

Version: 9.50.0.0 **(Optional)**

Prerequisites

The *HP ProLiant iLO 3/4 Channel Interface Driver for Windows X64* (version 3.4.0.0 or later) must be installed prior to this component.

Fixes

Corrected port numbering for the following 10Gb network adapters:

- HP Ethernet 10Gb 2-port 530 Adapter
- HP Ethernet 10Gb 2-port 534 Adapter
- HP FlexFabric 10Gb 2-port 533 Adapter

Enhancements

Enable installation under Windows Server 2012 R2.

HP ProLiant Agentless Management Service for Windows X86

Version: 9.50.0.0 **(Optional)**

Prerequisites

The *HP ProLiant iLO 3/4 Channel Interface Driver for Windows X86* (version 3.4.0.0 or later) must be installed prior to this component.

Fixes

Corrected port numbering for the following 10Gb network adapters:

- HP Ethernet 10Gb 2-port 530 Adapter
- HP Ethernet 10Gb 2-port 534 Adapter
- HP FlexFabric 10Gb 2-port 533 Adapter

HP ProLiant Integrated Management Log Viewer for Windows Server x64 Editions

Version: 7.0.0.0 **(Optional)**

Important Note!

Starting with version 7.0.0.0, this application will only install on HP ProLiant systems supporting the iLO 2, iLO 3, or iLO 4 management controllers. Installation in a virtual machine is no longer supported.

Starting with version 6.5.0.0, this application requires Administrator privileges through Windows User Account Control.

Version 6.2.0.0 of this application is the final version that will support installation under Windows Server 2003 x64 Edition.

Starting with version 6.0.0.0, the dependencies on the HP ProLiant Remote Monitor Service and the HP ProLiant Remote IML Service have been removed. This application no longer provides access to the Integrated Management Log on a remote system.

Starting with version 5.22.0.0, separate 32-bit and 64-bit releases of this application are available. If you wish to downgrade to version 5.21.0.0 or earlier, use Windows Add or Remove Programs to uninstall the 64-bit release before installing the earlier 32-bit version.

Enhancements

Add new events to the Unrecoverable System Error class. Provide additional details for System Power Fault events. Enable installation under Windows Server 2012 R2.

HP ProLiant Integrated Management Log Viewer for Windows Server x86 Editions

Version: 7.0.0.0 **(Optional)**

Important Note!

Starting with version 7.0.0.0, this application will only install on HP ProLiant systems supporting the iLO 2, iLO 3, or iLO 4 management controllers. Installation in a virtual machine is no longer supported.

Starting with version 6.5.0.0, this application requires Administrator privileges through Windows User Account Control.

Version 6.2.0.0 of this application is the final version that will support installation under Windows Server 2003.

Starting with version 6.0.0.0, the dependencies on the HP ProLiant Remote Monitor Service and the HP ProLiant Remote IML Service have been removed. This application no longer provides access to the Integrated Management Log on a remote system.

Starting with version 5.22.0.0, a 64-bit release of this application is available. Version 5.22.0.0 and later of the 32-bit release will not install under 64-bit Windows.

Starting with version 5.3.0.0, installation is based on the Microsoft Installer (MSI). If you wish to downgrade to version 5.2.0.0 or earlier, use Windows Add or Remove Programs to uninstall this application before installing the earlier version.

Enhancements

Add new events to the Unrecoverable System Error class. Provide additional details for System Power Fault events.

HP ProLiant System Providers for 64-bit Microsoft Windows Server Editions

Version: 9.2.0.0 **(Recommended)**

Enhancements

- Add support for Microsoft Windows Server 2012 R2 (DataCenter Edition, Standard Edition, Hyper-V)
- Add support for QFEs from 'Smart Update QFE CD for x64' version 9.50

HP Smart Storage Administrator (HP SSA) CLI for Linux

Version: 1.60-17.0 **(Optional)**

Important Note!

HP SSACLI will allow you to configure and manage your storage as before, but now with additional features, abilities, and supported devices. Existing ACUCLI scripts should only need to make minimal changes such as calling the appropriate binary or executable in order to maintain compatibility.

Enhancements

Support for

Smart Array P230i
Smart Array P530
Smart Array P531
Smart Array P830
Smart Array P830i

HP Secure Encryption
Rapid Rebuild Priority
SSD OPO (Over Provisioning Optimization)
512e Physical Drive support
Auto RAID 0

HP Smart Storage Administrator (HP SSA) CLI for Linux 64-bit

Version: 1.60-17.0 **(Optional)**

Important Note!

HP SSACLI will allow you to configure and manage your storage as before, but now with additional features, abilities, and supported devices. Existing ACUCLI scripts should only need to make minimal changes such as calling the appropriate binary or executable in order to maintain compatibility.

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512e Physical Drive support
Auto RAID 0

HP Smart Storage Administrator (HP SSA) for Linux

Version: 1.60-17.0 **(Optional)**

Prerequisites

The HP Smart Storage Administrator for Linux requires the HP System Management Homepage software to be installed on the server. If the HP System Management Homepage software is not already installed on your server, please download it from HP.com and install it before installing the HP Smart Storage Administrator for Linux.

IMPORTANT UPDATE: HP SSA (GUI) for Linux can now be run without requiring the HP System Management Homepage. HP SSA now supports a Local Application Mode for Linux. The HP System Management Homepage is still supported, but no longer required to run the HP SSA GUI.

To invoke, enter the following at the command prompt:

hpssa -local

The command will start HP SSA in a new Firefox browser window. When the browser window is closed, HP SSA will automatically stop. This is only valid for the loopback interface, and not visible to external network connections.

Enhancements

Support for

Smart Array P230i
Smart Array P530
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Smart Array P830
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Rapid Rebuild Priority

SSD OPO (Over Provisioning Optimization)
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HP Smart Storage Administrator (HP SSA) for Linux 64-bit

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HP Secure Encryption
Rapid Rebuild Priority
SSD OPO (Over Provisioning Optimization)
512e Physical Drive support
Auto RAID 0

HP Smart Storage Administrator (HP SSA) for Windows

Version: 1.60.17.0 **(Optional)**

Important Note!

HP SSA replaces the existing HP Array Configuration Utility, or ACU, with an updated design and will deliver new features and functionality for various Smart Storage initiatives as they come online. HP Smart Array Advanced Pack 1.0 and 2.0 features are now part of the baseline features of HP SSA, with the appropriate firmware.

HP SSA will allow you to configure and manage your storage as before, but now with additional features, abilities, and supported devices. Existing ACU scripts should only need to make minimal changes such as calling the appropriate binary or executable in order to maintain compatibility.

Enhancements

Support for

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Smart Array P530
Smart Array P531
Smart Array P830
Smart Array P830i

HP Secure Encryption
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HP Smart Storage Administrator (HP SSA) for Windows 64-bit

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Enhancements

Support for

Smart Array P230i
Smart Array P530

Smart Array P531
Smart Array P830
Smart Array P830i

HP Secure Encryption
Rapid Rebuild Priority
SSD OPO (Over Provisioning Optimization)
512e Physical Drive support
Auto RAID 0

HP SNMP Agents for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 9.5.0 **(Optional)**

Important Note!

The HP System Health Application and Insight Management Agents (hpasm) version 8.0.0 was split into three individual rpm packages:

- HP System Health Application and Command Line Utilities (hp-health) version 8.1.0
- HP SNMP Agents (hp-snmp-agents) version 8.1.0
- HP System Management Homepage Templates (hp-smh-templates) version 8.1.0

These three packages provide equivalent functionality as hpasm v8.0.0 and allow for more modular installation choices.

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

rpm –qp –-requires hp-snmp-agents-<version>.rpm

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- IPv6 for iLO.
- UEFI (Unified Extensible Firmware Interface) platform.

Added support for the following network adapters:

- HP Ethernet 1Gb 2-port 363i Adapter.
- HP Ethernet 1Gb 2-port 367i Adapter.

- HP Ethernet 10Gb 2-port 561i Adapter.

Added support for the following storage controllers:

- HP Smart Array P530 Controller.
- HP Smart Array P531 Controller.

HP SNMP Agents for Red Hat Enterprise Linux 5 (x86)

Version: 9.5.0 **(Optional)**

Important Note!

The HP System Health Application and Insight Management Agents (hpasm) version 8.0.0 was split into three individual rpm packages:

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- HP Ethernet 10Gb 2-port 561i Adapter.

Added support for the following storage controllers:

- HP Smart Array P530 Controller.
- HP Smart Array P531 Controller.

HP SNMP Agents for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 9.5.0 **(Optional)**

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

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Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
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HP SNMP Agents for Red Hat Enterprise Linux 6 (x86)

Version: 9.5.0 **(Optional)**

Prerequisites

To get the list of all dependency files for hp-snmp-agents type:

rpm –qp –-requires hp-snmp-agents-<version>.rpm

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.

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- HP Ethernet 1Gb 2-port 363i Adapter.
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- HP Ethernet 10Gb 2-port 561i Adapter.

Added support for the following storage controllers:

- HP Smart Array P530 Controller.
- HP Smart Array P531 Controller.

HP SNMP Agents for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 9.5.0 **(Optional)**

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-snmp-agents type:

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HP SNMP Agents for SUSE LINUX Enterprise Server 11 (x86)

Version: 9.5.0 **(Optional)**

Prerequisites

To get the list of all dependency files for hp-snmp-agents type:

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- HP Ethernet 10Gb 2-port 561i Adapter.

Added support for the following storage controllers:

- HP Smart Array P530 Controller.
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HP System Health Application and Command Line Utilities for Red Hat Enterprise Linux 5 (AMD64/EM64T)

Version: 9.5.0 **(Optional)**

Important Note!

The HP System Health Application and Insight Management Agents (hpasm) version 8.0.0 was split into three individual rpm packages:

- HP System Health Application and Command Line Utilities (hp-health) version 8.1.0
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These three packages provide equivalent functionality as hpasm v8.0.0 and allow for more modular installation choice.

Prerequisites

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must be present.

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- UEFI (Unified Extensible Firmware Interface) platform.
- Enhanced hpbootcfg functionalities (UEFI) as per the new EV (Environment variables) specs.

HP System Health Application and Command Line Utilities for Red Hat Enterprise Linux 5 (x86)

Version: 9.5.0 **(Optional)**

Important Note!

The HP System Health Application and Insight Management Agents (hpasm) version 8.0.0 was split into three individual rpm packages:

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HP System Health Application and Command Line Utilities for Red Hat Enterprise Linux 6 (AMD64/EM64T)

Version: 9.5.0 **(Optional)**

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

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HP System Health Application and Command Line Utilities for Red Hat Enterprise Linux 6 (x86)

Version: 9.5.0 **(Optional)**

Prerequisites

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- Enhanced hpbootcfg functionalities (UEFI) as per the new EV (Environment variables) specs.

HP System Health Application and Command Line Utilities for SUSE LINUX Enterprise Server 11 (AMD64/EM64T)

Version: 9.5.0 **(Optional)**

Prerequisites

The hp-health and hp-snmp-agents run as 32 bit applications in the x86_64 environment. The Linux kernel 32 bit compatibility must be enabled (usual default for Linux) and the 32 bit compatibility libraries must be present.

To get the list of all dependency files for hp-health, type:

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Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- UEFI (Unified Extensible Firmware Interface) platform.
- Enhanced hpbootcfg functionalities (UEFI) as per the new EV (Environment variables) specs.

HP System Health Application and Command Line Utilities for SUSE LINUX Enterprise Server 11 (x86)

Version: 9.5.0 **(Optional)**

Prerequisites

To get the list of all dependency files for hp-health, type:

rpm –qp –requires hp-health-< version >.rpm

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- Enhanced hpbootcfg functionalities (UEFI) as per the new EV (Environment variables) specs.

HP System Management Homepage for Linux (AMD64/EM64T)

Version: 7.3.1-4 **(Recommended)**

Prerequisites

The rpm will check for prerequisites.

Enhancements

- Enabled support of 2048 & 4096 bit certificate for Single Sign-On (SSO).
- Enabled FQDN (Fully Qualified Domain Name) for the CN (Common Name) field in the self-signed certificate & CSR (Certificate Signing Request).

HP System Management Homepage for Linux (x86)

Version: 7.3.1-4 **(Recommended)**

Prerequisites

The rpm will search for prerequisites and notify the user of any not present on the machine.

Enhancements

- Enabled support of 2048 & 4096 bit certificate for Single Sign-On (SSO).

- Enabled FQDN (Fully Qualified Domain Name) for the CN (Common Name) field in the self-signed certificate & CSR (Certificate Signing Request).

HP System Management Homepage for Windows x64

Version: 7.3.1.4 **(Recommended)**

Enhancements

- Enabled support of 2048 & 4096 bit certificate for Single Sign-On (SSO).
- Enabled FQDN (Fully Qualified Domain Name) for the CN (Common Name) field in the self-signed certificate & CSR (Certificate Signing Request).

HP System Management Homepage for Windows x86

Version: 7.3.1.4 **(Recommended)**

Enhancements

- Enabled support of 2048 & 4096 bit certificate for Single Sign-On (SSO).
- Enabled FQDN (Fully Qualified Domain Name) for the CN (Common Name) field in the self-signed certificate & CSR (Certificate Signing Request).

HP System Management Homepage Templates for Linux

Version: 9.5.0 **(Optional)**

Important Note!

The HP System Health Application and Insight Management Agents (hpasm) version 8.0.0 was split into three individual rpm packages:

- HP System Health Application and Command Line Utilities (hp-health) version 8.1.0
- HP SNMP Agents (hp-snmp-agents) version 8.1.0
- HP System Management Homepage Templates (hp-smh-templates) version 8.1.0

These three packages provide equivalent functionality as hpasm v8.0.0 and allow for more modular installation choices.

Prerequisites

To get the list of all dependency files for hp-smh-templates type:

rpm –qp –-requires hp-smh-templates-<version>.rpm

Enhancements

Added support for:

- New HP ProLiant Gen8 Servers.
- IPv6 for iLO.